The Builder.

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The Church of Abu Gosh and the Mosque of Hebron.

ELABORATE plans, sections, details, &c., of the Church of St. Jeremiah, or Abu Gosh, which stands on the main road between Jerusalem and Jaffa at about five miles distance from the Holy City, were made by M. de Vogüé about the year 1850. These drawings are included in his great book on "Les Eglises de la Terre Sainte," a work of enthusiastic labour and of the greatest utility to the student of Early "Gothic," although his attempt to realise the mediæval appearance of many of the Crusading monuments, such as St. Sepulchre, Jerusalem, is certainly much too imaginative and untrustworthy in the light of more recent studies. De Vogüé describes the church under the name of the Arab village "Kariath el Enab." His plan is very inadequate, and his drawings, like the usual French drawings of the period, are evidently too much the result of rough sketching, assisted by a recollection of what was seen on a hasty visit. In his description of the building he refers to its exceptional character, but does not seem to have noticed its resemblance to the fortress churches described above. He suggests that the upper portion, or clearstory, may have been "refait à une époque postérieure"—a fact which seems probable. He even goes so far as to associate the details of the brackets supporting this upper construction with the style of "les maisons de Damas élevées aux XV. et XVI. siècles." The Palestine Exploration Fund's Survey of Western Palestine also contains a plan and view of this church, but the drawings are equally inadequate—they belong to the period of R.E. surveying. A very good external view of the building is, however, reproduced in a drawing from a photo.

St. Jeremiah's still stands very much as M. de Vogüé saw it fifty years ago. Its history is as obscure as that of most buildings 600 or 700 years old. It would seem to have been built, as were so many of the Crusading churches (see Rey—"Architecture Militaire en Syrie"), to serve as the base of a fortified keep. These "keep" churches had living rooms over them, and the extensive terrace platform covering all commanded the curtain wall surrounding the property, and at the same time allowed of a water supply being collected during the torrential winter rains to fill the immense cistern which was usually constructed underneath the church or basement floor. Such churches were provided with very little light—mere unglazed arrow slits sufficed; they were probably used in war time for many quite secular purposes, and in peaceful intervals they served to some extent as parish churches.

The Church of St. Jeremiah differs from the type above described in possessing a somewhat more ecclesiastical than military appearance. Its walls are sufficiently thick—about 9 ft.—to admit of passages through their thickness; but the church does not appear to have possessed the upper stories usual in a keep. A small, feeble, natural spring of water in a crypt supplies the place of the more usual cistern in such buildings.* A still more ecclesiastical character is conferred by the presence of the clearstory, which, however, is not visible from the outside. The surrounding enclosure walls or outbuildings—if they ever existed—are now too much ruined for identification, but excavation in the rubbish heaps and squalid village which surround the building might reveal the original intention of this somewhat unique monument. At present there does not seem to be any prospect of such investigation.

The building (fig. 1) stands in a state of the most complete ruin and dilapidation. The vaulting over its nave and two side aisles is, however, complete, in spite of the grass-grown surface of its flat roof, which is, of course, cracked in all directions. The sheltered position of the building in a valley protected from the north has perhaps preserved it through the centuries from the natural effects of frost, but this vaulting may have a later origin than the main building of the church, as M. de Vogüé suggests. Christians of several kinds have probably occupied the building during the centuries intervening between the Mohammedan conquest of the Holy Land and the present day. Even the Franciscan Order maintained possession of it during the sixteenth century, and traces of mural painting of an Italian style remain upon its walls from that period.

The genuine incontestable evidences of the thirteenth and fourteenth centuries remaining are the ground plan (fig. 2) and the surrounding wall, which, from its monumental thickness, was clearly intended to withstand the ordinary experiences of a siege. The architectural pretensions of this building are—as is the case with most of the Crusading remains—comparatively unimportant. The interior consists of a nave 50 ft. high and two side aisles, all of equal width, each terminating in semicircular apses, and separated from each other by pointed arcades supported on plain square piers with simple capitals; the whole very suggestive of the Tuscan Mediæval style (*e.g.*, S. Trinita, Florence). There is a vestry built within the thickness of the apses to the north-east of the nave in the usual position in such buildings, and the crypt, 17 ft. high, which is merely a chamber occupying the position of a cistern in the foundation, is entirely without architectural detail. The external entrance up into the church and the doorway (now a mere jagged hole) down into the crypt are close together at the same point in the north wall, and were probably protected by some outside defence now no longer traceable. Two curious passages lead westwards from the crypt, as may be noticed on the plan. The southern of these probably communicates with the staircase in the west wall; but the whole of the crypt and the passages are filled in an unaccountable manner with stones and débris in such a way as to preclude investigation.

The Church of St. Jeremiah is an interest-

* According to Le Strange ("Palestine under the Moslems"), Nasir-i-Khusrau writes in his Diary (1047): "In the village of Kariyat al Inab there is a fine spring of sweet water gushing out from under a stone, and they have placed all round troughs, with small buildings contiguous for the shelter of travellers."

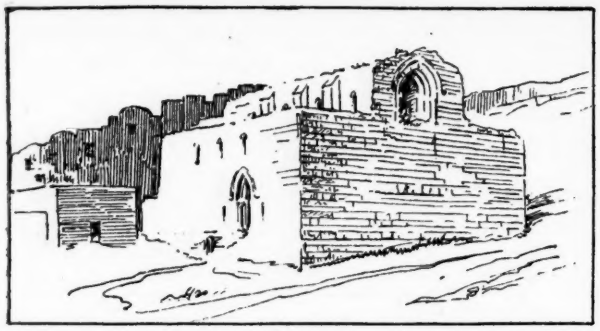


Fig. 1.—Church of St. Jeremiah at Abu Gosh, Palestine.

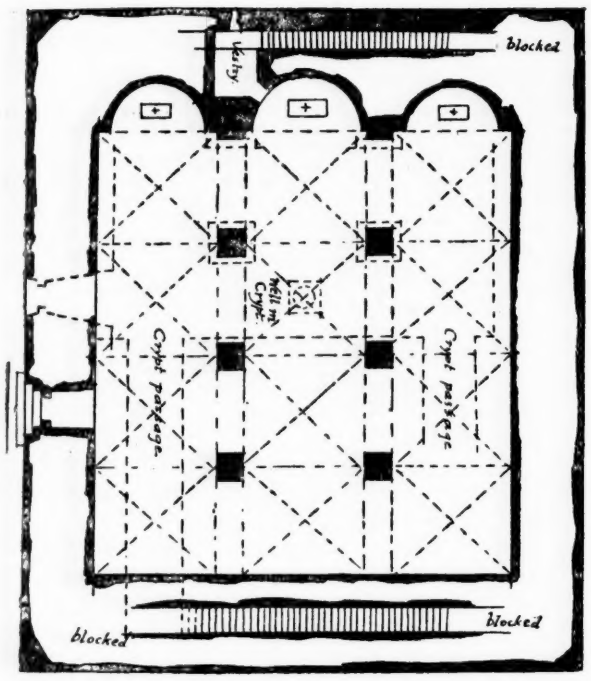


Fig. 2.—Plan of Church at Abu Gosh.

ing example of the fortified sanctuary of the Middle Ages, if it was not intended to form the centre of a fortress in the style of so many in North Syria. The great thickness of the walls, the evident intention of profiting by the presence of a natural spring, and the form of the building, all suggest, however, the probability that the original scheme may have been to build a fortress on the Jaffa road, which in after years was modified into a more ordinary ecclesiastical building, and the clearstory method of lighting the building is probably due to this modification, perhaps at a very much later period in the last years of the Latin kingdom.

During the long mediæval period succeeding the era of the Crusades, which is represented by a particular literature called the "Pilgrims' Books," the Church of St. Jeremiah is hardly mentioned. At a later period, when "Milord Inglese" wrote the account of his travels in the East, the church had become celebrated as the stronghold of a band of brigands, whose leader was a certain Abu Gosh, a kind of chief and director of a system of blackmailing and robbery of the earlier species of tourist on his way to Jerusalem. Abu Gosh was apparently recognised in an unofficial way by the Turkish Government of the period, and his memory still lingers in connexion with this curious ruin. In a precisely similar way, but with some modifications, the modern tourist visiting Jericho is expected to pay a fee to the sheik of Abu Dis to ensure exemption from indiscriminate plunder on the road. Few, if any, evidences remain of this singular use to which the old church was put in the first half of the nineteenth century; the neighbouring peasants have removed every trace of human habitation, and although the general structure of the building is entire, heaps of stones and rubbish block up the entrances, and yawning holes in the walls show where quarrying has taken place to supply the materials for the village huts.

The building is now in French possession, and under the immediate protection of the French Consul* of Jerusalem, and there seems some probability of its being "restored." Such a fate, unfortunately, means the complete destruction of every element of interest about the venerable ruin. The innumerable tourists in the Holy Land during the past twenty years have been impressed as much as their pilgrim predecessors with the appearance of this almost unique example of a Crusading church still surviving in such a comparatively perfect condition—but, alas! this remarkable landmark is doomed to perish and be replaced with one of the frightful creations of a Parisian architect executed by Arab workmen, whose ignorance of the most ordinary rules of construction is only equalled by their coarse method of stone cutting and want of mason-craft.

Architectural remains of the Crusading epoch in a fair state of preservation are exceedingly rare in Palestine, although a considerable number remain in Northern Syria. This Church of St. Jeremiah is one of the very few examples which retain the vaulting complete of the Middle Ages, for although this feature in the building may be a later addition or restoration, still it is perfectly mediæval in character. Only one other example of the "fortress church" still exists in fair preservation in the Holy Land, and that is the Crusading church built within the ancient Roman enclosure of the famous Mosque of Hebron. This church bears some resemblance to St. Jeremiah's; in a similar way, it is built over a vaulted crypt, and its three aisles are lighted by a clearstory concealed behind the massive surrounding walls. Thanks to its being turned into a mosque, the monument has been preserved in an interesting manner. It is to be regretted, perhaps, that St. Jeremiah's did not share the same fate, and thus escape that "restoration" which the French monks are now bent upon accomplishing, regardless of the interesting associations attaching to this striking and unique landmark. Every pilgrim and tourist to Jerusalem during the past 600 years must have gazed with particular interest upon this deserted fragment of a passed-away order and institution.

The plans of Abu Gosh and of the Mosque at Hebron (fig. 3) are here reproduced with the intention of comparing the two churches of contemporary date, and of representing them in a more accurate and intelligible manner than has hitherto been attempted. The Mosque at Hebron still remains closed to ordinary investigation, but enough has been discovered about it to admit of a very clear idea being formed as to its mediæval appearance as a fortress enclosing a church. The Palestine Exploration Fund published a plan made on the occasion of the visit of the young English princes (the present Prince of Wales and his brother) and although certain romantic details were suggested on this occasion,* there is no doubt that the whole of the Crusading church of Hebron is very well preserved as the present mosque. These fortress churches owe their preservation to the presence of the massive walls surrounding them, and in some ways the presence of the church may have tended to preserve this central feature (the keep) of the fortress. There are no churches of the Crusaders of an ordinary parochial or country description preserved anywhere in Palestine, although they must once have existed all over the land in the same way as in mediæval Europe, and they are abundantly recorded in documentary history.

In the year 1110 the fortress of Hebron was bestowed by Godfrey de Bouillon in fief on Gerhard d'Avennes.

It appears from the account of Hebron, written by Ali of Herat (1172), that the mysterious "cave" had been restored in the year 1119, in the days of Baldwin II., King of Jerusalem, and that the sepulchres of the Patriarchs were then reinstated. Probably this represents the building of the Gothic church (and consequent construction or restoration of the subterranean chambers under it), which constitutes the mosque of

* The French Consul took possession of the ruin in 1875.

* Suggestions were made that in the crypt beneath the Hebron church a number of Crusaders' effigies still exist upon tombs, which have been mistaken for the bodies of the Patriarchs by such few Moslem travellers as have from time to time penetrated the mysterious so-called "cave" beneath the mosque. There can be no doubt this "cave" is merely an ordinary crypt covered with masonry vaulting, which has even been repaired since the first Moslem occupation, and as there are no records of Crusading interments in the crypt, nor would it have been the custom to bury in such a position at that period, we must put the "sculptured effigies" legend down to an Eastern imagination.

the present day. The date of this reconstruction is confirmed by similar statements in the chronicle of Ibu al Athir.

During the Crusading period Hebron was a place of pilgrimage as at present, and the traditions regarding the Cave of Macpelah as underneath the Haram, or square enclosure of what appears to be Roman masonry, were continued. The six cenotaphs of the three Patriarchs (Abraham, Isaac, and Jacob) and their wives probably occupied the same relative positions as at present, but only those of Isaac and Rebecca were included under the new church. Travellers who have penetrated within the mosque of recent years seem to agree that the buildings over the other four tombs are of Moslem origin.

The Mosque of Hebron is described in the "Palestine Exploration Survey of Western Palestine" as having a nave with two side aisles lighted by a clearstory with three

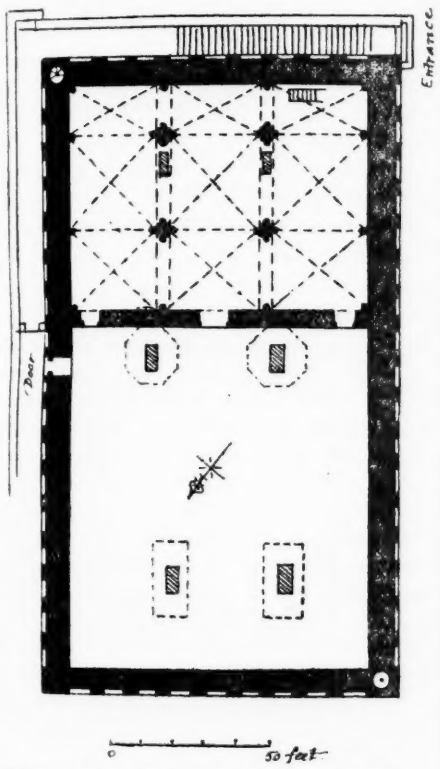


Fig. 3.—Plan of Church of St. Abraham (Great Mosque), Hebron.

windows on each side. There is a low-pitched gable at the west end, having a large window with slightly pointed arch, above which is a round window.

James Fergusson, who was one of the few foreigners who have been permitted to inspect the interior, states ("Holy Sepulchre and the Temple") that he ascertained with certainty that there is nothing within the enclosure older than the Crusades. All the visitors who have described this building agree in considering it a Christian church of the twelfth century, although the form and plan are very unusual for such a purpose. The square east end, formed with a narrow kind of transept bay, is carried up to the general level of the nave roof. The aisles, of 30 ft. span, seem to be on the scale and proportions of the once splendid Church of St. Sepulchre, in Jerusalem.

NEW MORTUARY, BLACKPOOL.—A new mortuary has been erected at Blackpool from designs by the Borough Surveyor, Mr. J. S. Brodie. The building has cost altogether about 600*l*. Messrs. Dryland & Preston, of Blackpool and Littleborough, have been the general contractors. Mr. Thos. Hartley has executed the joinery work, and the plumbing has been done by Messrs. Coulston & Son.

PUBLIC LIGHTING.

THE last decade of the nineteenth century witnessed a remarkable improvement in the lighting of streets and other places of public resort during the hours of darkness, and it is gratifying to observe that progress in this direction continues unchecked. It is true that in London the flickering glimmers provided in the trams and omnibuses remain to remind us of mediæval civilisation, while Chancery-lane still serves as an interesting illustration of the appearance of the Metropolitan streets at the period when gas was first adopted for public lighting.

Even in London, however, there are already indications of reform, for some of the most energetic members of the London County Council have recently had the temerity to suggest that the nightly scrimmages which take place at Blackfriars Bridge and elsewhere for a seat in an evil-smelling, dimly lighted, horse-drawn car might with advantage be abolished in favour of a common-sense traffic system, and cars lighted and actuated by electricity. Fortunately, British prestige is ably upheld by many of our less important towns, such as Bournemouth and Southport, which have long been provided with comfortable and brilliantly lighted electric trams.

In the matter of street lighting London has, however, made noteworthy progress during the last ten years; and although much improvement must be effected before many of the London side streets will bear comparison with those of some provincial towns, the main streets are for the most part comparable with those of any other well-lighted city.

The issue of a bulky treatise on Public Lighting,* by Mr. W. J. Dibdin, formerly Superintending Gas Examiner and Chemist to the London County Council, is a welcome indication of the increasing attention which this subject is attracting. This book discusses in great detail the subject of photometry, and the utilisation of gas and electricity for public lighting. It contains more than 200 illustrations, but of these many are already familiar to those who glance through the advertisement pages of technical periodicals, and might, we think, have been omitted with advantage. For example, the front view of an ordinary ten-light meter, depicted as in fig. 36, is neither beautiful nor instructive. Mr. Dibdin's long experience as a photometrist enables him to deal in a very able manner with photometry, and the chapters on this subject would alone form a most useful handbook. They may, in fact, be regarded as an up-to-date edition of the author's admirable work on "Practical Photometry."

It is to be regretted that Mr. Dibdin has devoted so much space to the demonstration of the fact that gas of high illuminating power may be more economical for use with flat-flame burners than low-grade gas supplied at a cheaper rate, for if gas companies were dependent at the present time upon the gas supplied for use in flat-flame burners they would already have ceased to earn dividends. It is the gas supplied for incandescent lighting, and for heating, cooking, and power purposes that to-day makes gas manufacture a profitable industry, and it is greatly to the credit of the London County Council that it has promoted a Bill to reduce the illuminating power standard of the gas supplied by the Gas Light and Coke Co., and to compel the company to make a commensurate reduction in the price charged for gas.

The quality of gas most suitable for distribution in any specific district is dependent upon the relative values of bituminous coal coke, and oil. In London coal-gas costs from 12d. to 15d. per 1,000 cubic ft. delivered into the gas-holder; while plain water-gas costs only 3½d., or less. The water-gas yields a non-luminous flame, but, when used with incandescent mantles, has practically the same illuminating efficiency as coal-gas. If the surplus coke obtained as a residual product in the manufacture of coal-gas be used, therefore, to produce water-gas for admixture with the coal-gas, a low-grade mixture as serviceable for public or private lighting as pure coal-gas may be sold at a considerably lower rate. In view of these facts we fully agree with the protest recently made by Professor Lewes that "it is manifestly unfair that the consumer of average intelligence, who is willing to utilise the benefits given by the incandescent mantle should have to pay for a quality of gas only rendered necessary by the inertia of those who decline to march with the times."

The fair comparison of the relative costs of lighting by gas and electricity is by no means an easy task, for it is impossible to ascertain the average intensity of light obtained by the consumer from a unit of gas or electricity; but the following figures, taken from the table given by Mr Dibdin, are probably as close an approximation to the truth as any similar figures which have been published. The figures do not include cost of maintenance:—

COST OF PRODUCING 1 000 CANDLES OF LIGHT DURING ONE HOUR.

	d.
16-Candle Coal-Gas at 3s. per 1,000 cubic ft.	
Flat-flame burners	13·8
Welsbach mantle	2·1
"Intensified" mantle	1·2
Electricity at 4d. per B. of T. Unit.	
Arc-lamp	2·2
Incandescent electric lamp	12·5

These figures afford striking evidence of the folly of consuming gas for illuminating purposes in flat-flame burners; and, in view of the fact that there is little or no difference between the lighting efficiency of mantles heated by coal-gas and that of mantles heated by a cheaper low-grade mixture of water-gas and coal-gas, it is impossible to support those who advocate the supply of high-grade coal-gas in preference to the supply of a lower-grade gas at a reduction in standard price of one penny per 1,000 cubic ft. for every reduction of one candle in the illuminating power.

The value of gas for illuminating purposes is now dependent mainly upon the calorific intensity of the flame it yields, while the value of gas for heating purposes is dependent upon its calorific power. We note with satisfaction that in Southport, where the gasworks are owned by the Corporation, the illuminating power, and consequently the price, of the gas has recently been reduced; and that the heating power of the gas is now tested regularly, and the results included in the records submitted to the Town Council. The determination of

* "Public Lighting by Gas and Electricity." By W. J. Dibdin, F.I.C., F.C.S. London: The Sanitary Publishing Co. 1902.

the calorific value might with advantage be included in the daily tests made by gas examiners in other districts.

Mr. Dibdin's book includes, we are glad to observe, a description of the apparatus employed for determining the heating power of gas, and gives tables showing the comparative calorific values of most of the gases which are extensively used for industrial or domestic purposes. It also contains descriptions and illustrations of all the burners and accessories commonly used for street lighting, and will, therefore, form an exceedingly useful work of reference for all who undertake the superintendence of public lighting.

The last ten chapters of the book are "intended to assist the general reader to form a fair idea of the processes involved in the production of electrical energy, and to point out the road to those who may be desirous of following the technical intricacies of the subject further." It is also stated that some of the points, "such as those relating to potential, have been considered from a new standpoint." We think that a great deal of the matter introduced into this part of the work might have been omitted with advantage. Popular definitions of abstruse quantities like "potential" had better be left to mathematicians like Kelvin or Raleigh. To define it as a "latent power capable of producing an *electromotive force*" can be only misleading to the engineer, and is probably quite unintelligible to the general reader. Later on, potential and pressure are regarded as synonymous terms, and so the thoughtful reader would try and think why pressure was "latent power," and why you got true power when you multiplied it by electric current. However popular a work may be, it is advisable to point out the limitations in the analogies between dynamics and electrical theory.

In several places the author talks of "a current of 'x' volts and 'y' ampères" as if a knowledge of the pressure were necessary to define the current. Again, at the beginning of the chapter on the alternating current transformer it is inferred that the volt-ampère and the watt are the same. As a matter of fact, with alternating currents the volt-ampères are always greater than the watts. For example, when a condenser load is connected on to the alternator terminals, the volt-ampères in the circuit may be one hundred times greater than the watts.

Figs. 171 and 173 are decidedly misleading, as the lines of force are drawn as if the armature cores were made of non-magnetic material. Also it is wrong to talk about "quantity of current" being generated during the revolution of the armature. What is generated is electromotive force, and the current depends on the resistance of the outside circuit. In fig. 186 a diagrammatic sketch is made of what purports to be the principle of an "induction" motor. It is stated that the ring inside must rotate at a slower speed than the frequency of the current magnetising the ring. It could not possibly work like this. Possibly it might run as a synchronous motor, making one revolution every period of the alternating current, but once it fell out of step it would stop dead and stay with the plane of the ring coil perpendicular to the lines of force.

It is stated that the field magnets of induction motors are laminated to avoid hysteresis loss. This is not the case, as they are laminated to avoid eddy-current loss. We are not aware that the lamination has the slightest effect on the hysteresis loss. The slip-rings on the rotor of those machines we have seen are not intended for regulating the speed; they are only used to introduce a resistance in the rotor circuit when the motor starts, so as to diminish the starting current. The limits of speed regulation for economical working can only vary between very narrow limits. One or two of the diagrams illustrate the principles of star-connected polyphase machines fairly well, but as polyphase systems are practically only used for power transmission, an account of them in a book on public lighting is rather out of place.

We were disappointed with the chapter on the photometry of glow-lamps and arc-lamps. The data are for very old-fashioned lamps. Besides, in some cases the mean horizontal candle-power of glow-lamps has been got by taking a mean of two readings. As they often vary 20 or 30 per cent. in different directions, owing to the bulb acting like a concave mirror, trustworthy results cannot be obtained from two readings. This can easily be verified by holding a sheet of paper in various positions round a glow-lamp, when bright bands will be noticed on it in several positions.

It is suggested that glow-lamps be run for some time before their candle-power is taken, as the initial reading is generally too high. Our experience is that the lamp attains its maximum candle-power after running about fifty hours. Some lamps take 200 hours to attain their maximum candle-power.

Brief descriptions are given of the electric-lighting stations at Watford, Gloucester, &c. These may be of some slight assistance to the expert, but data about rectifiers, boosters, feeder mains, &c., can be of little interest to the general reader.

NOTES.

The London Building Act Amendment Bill.

SEEING the opposition which the proposal to introduce the Bill to amend the London Building Act has aroused, the decision of the County Council to withdraw this measure will be received with satisfaction. The Council will, however, introduce a new Bill next Session, but it is to be hoped that in its new form it will be less comprehensive, have greater reference to certain matters which admittedly require supervision and amendment, and also, when it seriously affects vested interests, it will be less arbitrary, and will give those affected by its provisions an appeal, in serious questions, to a higher tribunal. In the Bill now withdrawn factories were excluded from its operation, yet, as we have recently seen from the case of Toller *v.* Spiers & Pond (commented upon in the *Builder*, December 27, 1902, p. 599), the Factory and Workshop Act, 1901, has a serious omission in its provisions in the case of factories let in flats. Repeated piecemeal legislation is to be deprecated on all grounds, and we therefore trust that when a Bill on this subject is again introduced it will be a well thought-out measure, only dealing with matters of necessity, but as to such matters comprehensive in its nature.

Landlord and Tenant.

THE current number of the Law Reports contains two decisions of interest to landlords and tenants. In Blore *v.* Giulini a lease of a house for a term of fourteen years contained a clause giving the lessee the optional right to determine it at the end of seven years, in which event the indenture "and any clause matter and thing therein contained" was to "cease and determine and be void;" and since there was no clause preserving the lessor's rights for existing breaches of covenant it was contended that the lessor was left without any remedy for the lessee's neglect to repair the premises. To those who are firmly imbued with the idea that the "law is a hass," it will come as a surprise that the Court, as a matter of common sense, declined to adopt a view so unreasonable. The second case, Lord Mostyn *v.* Fitzsimmons, is the converse of the above, as it related to a covenant which gave the lessee the right to renew the lease for a further term of years at his own cost, upon payment of a fine calculated upon the number of years unexpired and the full improved annual value of the premises "as calculated by the landlord's surveyor or at the option of the lessee by the award of two referees or their umpire." The Court of Appeal, reversing the Court below, have held that this covenant imposes the costs, properly and necessarily incurred in the arbitration and award, on the lessee who selects that method of assessment.

Municipal Corporations' Reproductive Undertakings.

THE Parliamentary Return relating to the so-called reproductive undertakings of Municipal Corporations contains much information of interest, and is far more comprehensive than the Return of August, 1898. Out of a total of 317 Municipalities, 299 carry on undertakings which in their nature should bring in profit, but the annual average result over the past four years is a net profit of 378,281*l.* on a capital of about 101,000,000*l.*, or about ¾ per cent. The advocates of municipal trading may, however, point to the repayments of principal, but even allowing for this sum, which amounts to 1,264,544*l.*, the profit shown is only about 1¼ per cent. Certain undertakings, such as baths and wash-houses, cemeteries and markets, seem to be undertakings within the proper sphere of municipal enterprise, but those under municipal management, with the exception of markets, all show a loss, and in the case of baths and wash-houses, if the repayments of principal and interest had been entirely suspended, a loss of 52,699*l.* would still be shown on a capital of about 1,500,000*l.* Gasworks appear to be the most lucrative of the undertakings, markets and waterworks being next in order. Harbours and docks and electric lighting show heavy losses, yet 102 Corporations engage in electric lighting and 43 act as harbour and dock authorities. The outstanding amount of borrowed capital is 100,786,404*l.*, the population of the 299 Boroughs in question is 13,093,870, and the assessable value 55,076,203*l.* Particulars are given in relation to each Borough, and the results, summarised on the same principle as the figures are given in each particular instance, so that the statements made by the partisans on either side on the question of municipal trading are now capable of easy verification. It would, however, appear that the vast capital now engaged in these undertakings could certainly be employed to greater advantage for the community at large.

Compensation for Interest in Glebe Lands.

A CASE of an unusual character, in relation to compensation for lands taken compulsorily, was heard by Mr. Justice Farwell on the 17th ult. The Great Western and Great Central Railways had acquired certain portions of the glebe lands at Swinderton for the purposes of their undertakings, and had paid the agreed price of 1,600*l.* into Court. A new line was being constructed over part of the land so acquired, which passed within 50 yards of the rectory, and an existing line within 130 yards was being widened, and in the execution of these works two temporary lines crossed the roads which formed the only means of access to the rectory. In respect of the inconvenience thus caused to him, together with the noise occasioned by the works, the rector, an old man of eighty years of age, claimed to be entitled to 100*l.* of the above sum by virtue of Section 73 of the Lands Clauses Consolidation Act, 1845, which gives the Court of Chancery discretion to award "any tenant for life or for any other partial or qualified estate" compensation for injury, inconvenience, or annoyance sustained by him independently of the value of, or damage to, the lands taken. The Court granted the application, whilst commenting on its unusual character.

New Gasworks, Edinburgh.

ON the 27th ult. the new gasworks erected at Granton by the Corporation of Edinburgh were formally opened. The average annual increase in the output of gas for some time prior to the introduction of electricity into Edinburgh in 1895 was at the rate of 3·3 per cent., and since that date the average annual increase has been 51,000,000 cubic feet or 3·6 per cent. This fact has induced the Corporation to buy a site having an area of over 100 acres for a new gasworks, and to erect thereon plant of the most modern design for the production of gas and the treatment of by-products. The expenditure has already exceeded 500,000*l.* Not only have labour-saving devices been adopted wherever possible, but locomotive sheds and workshops equipped with forges, power hammers, punching and shearing machines, drilling machines, lathes, screwing machines, &c., have also been erected to enable all repairs and simple constructional work to be undertaken on the works. Covered coal stores have been provided to contain 15,000 tons of coal, and have been fitted with mechanical appliances which enable one man readily to handle 20 tons of coal per hour. The steam generators are of the Stirling boiler tubular type. The gas engineer, Mr. W. R. Herring, and the Edinburgh and Leith Corporations' Gas Commissioners may be congratulated upon the successful achievement of a notable undertaking.

Leakage of Electric Currents.

THE paper on "Network Tests and Station Earthing," read last week by Mr. A. M. Taylor to the Birmingham local section of the Institution of Electrical Engineers, treats of a subject which is deserving of the most serious attention. We have pointed out on several occasions that the pressures between the mains and earth on several of the London supply companies' circuits are much higher than the pressure of supply. Mr. Taylor is very careful never to allow the potential of any of his mains to rise above 250 volts. Hence, even when testing their insulation resistance he keeps the earth connexion on the middle main in its place. He does not trust to the official record of the leakage current on the Board of Trade ammeter, but recognises that this record is of small value, and only measures part of the leakage current. By making an artificial leak on one of the outers, it is easy to make the Board of Trade ammeter read zero. Therefore a diminution of the current officially recorded may mean that the leakage currents have actually increased. In Mr. Taylor's station the average value of the current continually pouring into the earth from the middle main is four amperes. We consider that this is satisfactorily small, and we hope that the damage it does is microscopic, since it is spread over acres of underground pipes of all kinds. Earth currents from the supply stations in London of ten times this amount are by no means unusual. Occasionally, when there is a bad "short circuit" there are thousands of amperes straying underground. It would be too much to expect that these currents never do any damage. We know of one case where they fused the mains of another supply company, and the numerous explosions last year in street boxes will still be remembered. We can recommend Mr. Taylor's paper to all electrical engineers who wish to know how to measure leakage currents, and how they depend on the insulation resistance of the network.

The Nernst Lamp.

ALTHOUGH it is five years since Professor Nernst invented his electric lamp, yet, owing to the stringency of the patent laws in civilised countries, it is only now that these lamps can be obtained in this country. The English company who had secured the right to make and supply them to a few of our colonies and South America, although they made certain improvements and, in our opinion, manufactured a better lamp than those made in Germany, have now given up making them. All the lamps supplied in this country are made by the Allgemeine Electricitäts Gesellschaft of Berlin, who have turned out enormous numbers of them during the last two years. Mr. J. Stöttner exhibited some forms of these lamps and read an interesting historical paper on them to the Institution of Electrical Engineers last week. Their efficiency is about twice as high as that of glow-lamps, but as a rule their life is shorter. Care also has to be taken when putting them in the socket-holder to see that the current flows in the proper direction. Hence the agents usually supply the purchaser with pole-finding paper to enable him to find the proper way to put them in the holders. Mr. R. Hammond described the experiment he made of lighting a mile of street in Hackney with 100 candle-power Nernst lamps placed every 40 yds. He found that for street lighting their average life was 300 hours, and that the annual cost, including interest, depreciation, &c., was 5*l.* 17*s.* 9*d.*, which he considered too high, and so he had reported against their being used. Mr. Solomon, who has made some wonderfully good lamps for the English company, described the marvellous regulating effect of the iron resistance which is placed in series with the filament, and suggested that a Nernst lamp would do admirably for a light standard. This resistance was referred to by some of the speakers as the "bolstering" resistance. We would suggest that it be called the ballasting resistance.

"A Revolution in House-building."

COUNCILLOR J. B. COLTON, Deputy-Chairman of the Liverpool Corporation Housing Committee, has recently given some particulars of a method about to be adopted by the Corporation in the erection of cheap houses to accommodate the dispossessed slum population—a method which, in his opinion, will "create a revolution in house-building." Concrete made from refuse-destructor clinker and cement is the material, and the only peculiarity appears to be in the mode of its application. Monolithic concrete walls, floors, and roofs, laid *in situ*, have often been adopted, and so also have concrete slabs or blocks of various shapes and sizes. The peculiarity of the new method lies in the use of very large slabs: the fronts, sides, floors, and roofs of the houses, we are told, are "all to be made in single individual parts, hoisted into position, and then bolted together." The buildings are to be of three stories, and the estimated cost is one-half that of brick buildings of the same size. Councillor Colton declares that the houses can be erected at the rate of one a day. His definition of the word "erected" would be interesting. It clearly does not take into consideration the time required in the casting and maturing of the slabs, or in the internal finishing of the houses, and we are inclined to think that, both in time of construction and in cost, the estimates will be considerably exceeded. So many claims have been made in favour of concrete construction for houses, and so few have been substantiated in practice, that we look with a certain amount of doubt on the new scheme. As we have not seen the drawings, we cannot say what the external appearance of the houses will be; but our imagination pictures something the reverse of beautiful. Cheap houses are a necessity, and the experiment is worthy of a trial; but we are not enthusiastic about its chances of success.

St. Edmund Hall, Oxford.

A STATUTE of 1877 for making over the site and property of the Hall has just come into effect. The proposed statute for establishing a complete union of Queen's College and St. Edmund Hall would bring about the absorption of the Hall in the College and the extinction of the now last-remaining academical Hall appertaining to the University. The greater portion of the buildings of St. Edmund Hall, in Queen's-lane, were erected in the middle of the seventeenth century; they constitute three sides of a quadrangle, partly covered with ivy, whilst their quaint and irregular outlines present a very pleasing and characteristic effect. The chapel and the library were built mainly at the charges of Stephen Penton, Principal of the Hall in 1675-84; the antechapel, of two stories, has a doorway flanked with two Corinthian columns that rise up through both stories and carry a pediment, the upper story forms the library; the chapel, which on the north and east sides abuts on the gardens of New College, has an east window filled with coloured glass designed by William Morris. The Hall takes its name, reputedly, from Edmund

Le Riche of Abingdon, Archbishop of Canterbury in 1234-45, and afterwards canonised, who gave lectures in some old schools on that site. In 1269 the Canons of Oseney bought the buildings, and, appointing a principal, devoted them to purposes of academical teaching. At the Suppression Henry VIII. granted the Hall to two citizens of Oxford, who sold the property to William Dennisse, Provost of Queen's, who in 1557 devised it to the College. Two years afterwards Queen's College secured the right in perpetuity of appointing to the principalship. Dr. Moore, who has been Principal since 1864, and has just been appointed to a canonry at Canterbury, was the occupant of an office which has continued in an unbroken succession extending over more than 600 years. The records for the interval 1276-1307 of Oseney Abbey are lost; John de Cornubia is cited as Principal of St. Edmund Hall in 1317; Queen's College was founded in 1340 by Robert de Eaglesfield, confessor to Philippa, the Queen Consort of Edward III.

The Canal Bridge, Maida Vale. WE learn that proposals are made by the Regent's Canal Co. and the Paddington Council for the rebuilding, with improved abutments and approaches, at a computed cost of 10,000*l.*, of the bridge across the Regent's Canal, opposite Warwick-road, which is now unsuitable for existing requirements. That portion of the canal, as projected by Nash, the architect, was constructed in 1812-4, James Morgan being the engineer, and extended to the Regent's Park basin; the continuation to Limehouse was opened six years afterwards. The total length of about 8½ miles has a tunnel at St. John's Wood and another tunnel at Pentonville. The twelve navigation locks constitute an aggregate fall of some 90 ft. On the morning of October 2, 1874, the Macclesfield bridge in Regent's Park, at the south end of Avenue-road, was completely destroyed by the explosion of a cargo as it passed under the bridge. The Grand Junction Canal, which the Regent's Canal joins at Maida Vale, was opened from Uxbridge to Paddington in June, 1801, and for a long period was used for a daily passenger service between London and Uxbridge. Macclesfield Bridge, shattered to pieces by the explosion of five tons of gunpowder, was designed by Morgan, who had been one of Nash's pupils, and assisted him in laying out Regent's Park. Some years ago the Regent's Canal, City, and Dock Railway Co., as incorporated in 1882, obtained an Act for constructing a railway from Paddington to Limehouse, parallel to the canal, with a branch to the City, near Barbican. Ten years afterwards they changed their name to that of the North Metropolitan Railway and Canal Co.

The Town Church, St. Andrew's, N.B. A SET of sketch-plans and designs has been prepared by Mr. P. Macgregor Chalmers for a Committee who have undertaken to collect the funds, estimated at 23,500*l.*, for the proposed restoration of the Town Church of St. Andrew's. The scheme provides for the preservation of the tower, the rebuilding of the body of the fabric in accordance with the original plan as far as it can be ascertained, the removal of the galleries, the lowering of the aisles to their former height, and a reproduction of the old clearstory. The church, in South-street, formerly known as Holy Trinity, was originally established by Bishop Turgot in 1112. In 1798 most of the structure, with the exception of the tower and spire, was rebuilt in a plain and ungainly style, with room for more than 2,000 sittings. It contains an elaborated and lofty monument, in white marble, to commemorate James Sharp, Archbishop of St. Andrew's, with a bas-relief representing his murder by the Covenanters on Magus Muir.

Royal Academy Lectures. PROFESSOR AITCHISON'S fourth and fifth lectures to the students of the Royal Academy were mostly taken up with the description of the various coloured tiles and marbles, beautiful examples of which were arranged round the lecture-room. Mr. Brindley lent a fine collection of precious marbles, noticeable among which was a large piece of American marble. The Professor made no remark upon this, and it seems as though the great beauty and comparative cheapness of American marbles is not yet appreciated in this country. An instance of their use is the buffet at the Criterion Restaurant, which is a most successful piece of decoration. Professor Aitchison spoke of the uselessness of using coloured marbles in the London atmosphere for outside decoration; he deprecated also the use of granite for similar reasons, referring, we suppose, to polished granite, for in its rough state it is an exceedingly effective building material. The discussion of suitable building materials for London must be almost endless, owing to the lack of a local material other than London bricks; perhaps the solution may one day be found in some kind of glaze upon these. As an example of interior marble decoration the lecturer pointed to the Brompton Oratory, a good enough example of fine material and weak design. It is to be hoped that the late Mr. Bentley left working designs for the marble decoration within the new Roman Catholic Cathedral at Westminster. The interior effect without it is magnificent for its gloomy grandeur; when covered with marble and mosaic, though the increased richness of detail will add to the scale, much of the atmospheric effect will be lost unless it is all from the mind which conceived the whole. Marble decoration at present, as the Professor pointed out, is chiefly confined to public-houses and dairies; it might, however, be much more largely used than it is for the entrance vestibules of town houses; it would give to narrow passages and lobbies light and a decoration independent of the rough usage of constant traffic.

LETTER FROM PARIS.

THE Commission for the Société Centrale des Architectes Français has passed the following resolution concerning the rights of authorship in architecture—"The architect has the right to forbid the reproduction by photography of any public or private building of which he is author, unless, of course, an agreement to the contrary has been made between him and the owner of the building. In the case of any reproduction of the building by photography and the sale of these reproductions, the architect has the power to exact the fees due to his right of authorship. The mention of his name and his quality as architect is obligatory on all reproductions."

The Académie des Beaux-Arts has just published its Report on the work sent in during 1902 by the students at the Villa Medicis. The Report justly praises the work and endeavours of M. Bigot; speaks in severe terms of the work of M. Tony Garnier, who, it will be remembered, showed in the work he sent in in 1901 and 1902 an utter disregard for the Classic traditions of the Ecole, and called down much displeasure on his very modern and unclassical designs. The Report reminds M. Duquesne that his contribution of last year was very incomplete, and requires this student, as well as M. Garnier, to keep to the strict rules this year. A good word is said for M. Chifflot, who sent in some very important and careful work.

The construction of the metropolitan railway will necessitate some important operations just in front of the façade of the Opera-house, for at this point a very deep excavation is to accommodate three lines one above the other—that from Courcelles to Menilmontant, that from the Palais Royal to the Place du Danube, and that from Auteuil to the Opera-house, which will have its terminus under the Boulevard des Capucines near the Chaussée d'Antin. As a result, an immense workyard surrounded with palisades, leaving only a narrow passage for carriage traffic on each side, occupies the axis of the Boulevard from Rue Auber to Rue Halévy. As the work will occupy the whole year, there is a good deal of grumbling at this obstruction to the traffic; but it is unavoidable, as the subterranean lake at this point, which gave Garnier so much trouble in building the opera-house, has to be dealt with by the engineers. The three crossing tunnels are to be enclosed in massive masonry construction which will keep out the water, but the work requires great precaution, and the surface of the Boulevard is subsequently to be carried on steel girders. In order to avoid still further interruption of the surface traffic, the delivery of materials on the work is to be carried on through an underground passage under Rue Auber, entered near the Gare St. Lazare.

The *Journal Officiel* contains the decree authorising the formation of the much-discussed provincial schools of architecture. The towns in which these schools will be established have not yet been absolutely decided on, but the utility of forming such centres for the study of architecture in the provinces is fully recognised. The school programmes will be similar to those of the Ecole des Beaux-Arts at Paris, and the necessity for students to come to Paris in order to follow up their studies in architecture and obtain their diploma will thus be avoided. M. Guadet, Chief Inspector of Government Buildings, who represented the interests of the Commission formed to study the subject, stated that the creation of provincial schools of architecture was necessary to obviate the various dangers which beset the future of architecture in the provinces. The real practical utility of provincial schools was one which left no room for discussion. In the other arts the quality alone of the artists was the most important, in architecture the number was more important than the quality, for the architects were the preservers of the larger portion of the patrimony of the country as regards building property. It was calculated that 6,000 architects were necessary in France, and that the Ecole des Beaux-Arts could not turn out that number. The Commission considered, however, that the new schools should exist in a small number only, and should be placed only in towns which could materially assist the creation and working of the schools—towns which also possessed a university providing the students with scientific, historical, and literary knowledge. The provincial schools will follow exactly the same programmes of study as those of the section of architecture at the Ecole des Beaux-Arts, and will confer the same degrees. Their pupils would participate in the various foundation competitions, such as the Rougevin, Godeboeuf, Blouet, and American Prix competitions, the only difference being that the money prizes going with these competitions would not be awarded at the provincial schools.

The Société des Artistes Français has composed its committee for the year 1903 of the following members:—President, M. Bouguereau; Vice-Presidents, MM. Scellier de Gisors and Bartholdi; Secretary, M. Albert Maignan; Treasurer, M. Boisseau; and MM. de Richemont, Lemaire, and Pascal as secretaries of the sub-committees. M. Tony Robert-Fleury has been nominated President of the Jury for the Section of Painting at the Salon of 1903, M. Bartholdi President of the Jury for

Sculpture, and M. Albert Maignan for that of Decorative Arts.

It has been decided to hold in July next, at the Grand Palais of the Champs Elysées, an exhibition of model dwellings and building industries. The exhibition will comprise seventeen sections, and will include three classes of dwellings—grouped dwellings; isolated dwellings; and collective dwellings, with sub-sections illustrating dwellings for families with children, married couples without children, and bachelors. The other sections will comprise various exhibits concerning improvements in heating, ventilation, lighting, sanitation, water-supply, furnishing, and the interior and exterior decoration of the dwelling.

The Société du Nouveau Paris, formed for the purpose of furthering the interests of modern art design at Paris, has elected its committee as follows: President, M. Frantz Jourdain; Vice-Presidents, MM. Albert Besnard and Rousseau; Secretary, M. Georges Bans; and Treasurer, M. Emile Strauss.

A series of very fine photographs of the Louvre and the Tuileries, dating from the time of the work which was done to unite the two palaces, has been offered to the Carnavalet Museum by the heirs of M. Lefuel, the celebrated architect, who, in 1854, succeeded Visconti as architect to the Louvre. Lefuel reconstructed the portals of the Carrousel in 1869, and the Pavillon de Marsan after its destruction by fire in 1870.

An interesting historical building, the old Hôtel de Chastelleux at the corner of the Rue de Varenne and Rue Vaneau, has been condemned and is to be pulled down. This house was the dwelling of Cardinal de Polignac, the successor of Bossuet at the Académie Française. A number of interesting objects of art, such as old bas-reliefs in the chimney-pieces, representing some fine allegorical compositions, have been reserved and will be handed over to one of the Paris museums.

The City of Paris has just received from M. Bartholomé, the sculptor of the "Monument aux Morts" at Père Lachaise, the gift of a very interesting series of drawings executed by his uncle, the late architect, Bartholomé, for the decoration of the chapel of the Invalides, and for the pulpit for the same chapel, together with the scheme of decoration for the apartments of his friend the Duc de Feltre at the Invalides.

An examination of the building and park of the Château de Chantilly has revealed an urgent necessity for repairs. The grand staircase descending to the gardens is to be restored at once, and the work has been entrusted to M. Saint-Ange, architect to the Château.

M. Barrias, the eminent sculptor, has been awarded the Prix Lheureux, which was founded in order to be awarded in alternate years to a sculptor or an architect, author of the finest monument or the finest edifice inaugurated during the two years before the date of awarding this prize. This award was made for the first time in 1901 to Dalou for his monument entitled "the "Triumph of the Republic," and in 1902 to M. Girault for his building, the Petit Palais. This year the prize is attributed to M. Barrias for his monument to Victor Hugo, inaugurated last February.

The pulling down of the last buildings remaining from the 1900 Exhibition in the Champ de Mars, is now being undertaken, and in about six months' time the whole of the ground will be cleared.

M. Jambon, the painter, is at present occupied over the production of a number of small models of the interiors of the most interesting rooms in the historical monuments. The rooms in the Château of Versailles are now being reproduced, and, besides the reproduction in miniature of the interior decoration, the whole will be furnished with small reproductions of the furniture and hangings in their original styles. These reproductions are intended to illustrate lectures in the State schools on the decorative art of the various epochs.

At the last meeting of the Institut de France, M. Lucas Beltrami was elected a corresponding member of the Académie des Beaux-Arts, and M. Caird, professor at the University of Oxford, corresponding member in the section of philosophy at the Académie des Sciences. M. Beltrami is well known at Paris; he was for some time inspector of the work at the Hôtel de Ville under M. Ballu; he is an old pupil of the Ecole des Beaux-Arts, and is at present at Milan, where he is restoring the Ducal Palace.

The formalities for handing over to the City of Paris the foot-bridge which crosses the Seine between the Pont d'Iéna and the Pont de l'Alma, built for the purposes of the 1900 Exhibition, are now completed. M. Picard will sign the agreement, and M. Bouvard, Architect to the City of Paris, will now complete the ends of the bridge and hand it over for public use.

M. Vernon, the sculptor, has just completed the wax models of the "plaquette," destined to commemorate the centenary of the installation of the Académie de France at the Villa Medicis at Rome. On one side is represented the façade of the Villa Medicis, on its right a grove, the favourite walk of the "Prix de Rome" students; in the grove is shown a fountain, and on the pedestal of the fountain the Muse of the Villa Medicis is seen engraving the names of the most celebrated of the winners of the Prix de Rome in the last century—Baudry, Berlioz, Carpeaux, Garnier, Gounod, Ingres, and Rude. On the reverse is shown the figure of a young student leaning on the balcony of a terrace overlooking the wonderful panorama of Rome. This "plaquette" will be offered to the winners of the Grand Prix de Rome during the coming centenary fêtes.

M. Bartholdi is preparing his models for the large monument to be erected at Montmartre in memory of the aëronauts of the siege of 1870. The allegorical group in bronze which forms the lower portion of the monument will be surmounted by an immense balloon constructed entirely of mica, about 14 ft. in diameter, with its summit at about 50 ft. above the Place Pigalle, on which the monument will be erected, the spot from whence the balloonists started on their dangerous journeys. This globe will be brilliantly illuminated at night-time, and will be visible from most parts of Paris.

The ugly iron column which commemorates on the Place de Breteuil the first artesian well sunk at Paris has been condemned, to give place to the monument to be erected to Pasteur on this square. The water coming from this well, although of a constant temperature of 28 deg. C., has up to the present only been utilised for flushing the public sewers; it will, however, now be employed for the supply of a bathing establishment to be established by the Municipality at Grenelle. The "Vieux Paris" Committee has made a weak protest against the demolishing of this monument, but to no effect.

A competition is opened between architects for the construction of a municipal school for children, and a "crèche," at Fontenay-sous-Bois, the cost of which is estimated at 6,500*l.*

There is serious talk in artistic circles of the establishment of a third Salon of Painting and Sculpture, to be held during the last quarter of the year; a time when there is little going on in Paris, and artists have no opportunity of exhibiting their works. A society has been formed to carry out this idea, presided over by M.M. Besnard and Carrière, the painters, with M. Frantz Jourdain, the architect, as Vice-President; and it is expected that the first "Salon d'Automne" will be opened in October, in the basement galleries of the Petit Palais.

The exhibition of the "Peintres Orientalistes" has been opened in three rooms of the Grand Palais, but does not present much that is of interest, and more notice is attracted by the exhibition, at the Durand Ruel Gallery, of the "Société Nouvelle de Peintres et de Sculpteurs," which has already been mentioned in our columns. The principal interest of this little exhibition is centred in the works of M. Jacques Blanche, who exhibits a series of portraits of great merit, based more or less on the style of Gainsborough, whose work the artist has made a special study. At the Bernheim Gallery an exhibition of the works of M. Carrière attracts a good deal of attention, especially as it illustrates the progress and change of style and manner which this remarkable painter has passed through since his name and works first came under public notice. In his later works the design, always fine in its general lines, seems to disengage itself from a kind of pervading mist, with an effect which is poetic, no doubt, if rather too mannered. Another minor exhibition is that formed by the Lorraine artists—"L'Ecole de Nancy," as they call themselves—in the Musée des Arts Decoratifs. The exhibition, which is to be open for a month, includes some fine stained glass by M. Emile Gallé, who exhibits also some delicate work in ebony; carved furniture by MM. Majorel, Gruber, and Valin; and various admirable work by M. Victor Prouvé. The collection as a whole is notable not only for originality but for the sober and restrained taste which pervades it.

The Luxembourg Museum has re-opened its doors after some important rearrangements. Among the new works on view are the portrait of Paul Adam by M. Blanche, the "Maison du Soleil" of M. Henri Martin; landscapes by MM. Harpignies, d'Irwill, and Binet; "L'Hiver en Norwège" by M. Thaulow; "La Justice du Cherif" by Benjamin Constant; and in sculpture, the "Pensée" of M. Rodin and the "Violettes" of M. Larche. In one room are collected some interesting works by John Lewis Brown and G. Boudin. The former include drawings, etchings, lithographs in colour, and pastels of military and equestrian subjects. Among the sea-pieces of Boudin the "Vue de la Rade de Villefranche" illustrates the best qualities of this artist.

The Colonial Office is completing the installation of the Colonies Museum in the Palais Royal, where it will occupy the whole of the rooms bordering on the Galérie d'Orleans. It is a bad site, however, and the museum will want unity and coherence, and is lacking also in exhibits of original interest, consisting as it does chiefly of photographs representing the localities and types of various French colonies; and it is doubtful whether such an exhibition will give any new life to the nearly deserted galleries of the Palais Royal. The site ought to be connected with Rue Richelieu and Rue Vivienne by removing the old houses which stand between them, so as to give a better access to the Palais Royal than by the present narrow lanes.

The demolition of the Marché du Temple is shortly to be commenced, and the "Vieux Paris" Committee is in hopes that some interesting discoveries may follow, since upon that site there stood, up to 1790, a monastery of the Order of St. John of Jerusalem, near to one of the ancient fortifications of Paris. The excavations are to be carefully carried out under the direction of an experienced architect, M. Soudée. Parliament has been occupied also with the passing of an Act for the demolition of the expiatory chapel built on the site of the cemetery of La Madeleine, where the bodies of Louis XVI. and Marie Antoinette were interred at the time of the Revolution. Curiously enough, the "Vieux Paris" Committee has passed a resolution in favour of the preservation of this monument, the demolition of which was first proposed to the Municipal Council by the founder and first President of the Committee, M. A. Lamoureux. Political feelings, it should seem, are not always in accord with archæological tastes. The demolition seems at all events uncalled for, and the destruction of the work of Percier and Fontaine will be a loss for Paris and for art.

The death is announced, at the age of seventy-six, of M. Hubert Ponscarme, the eminent medallist, and Professor at the Ecole des Beaux-Arts. He was a pupil of Vauthier, Oudiné, Galle, and Dumont, and was the real reviver of the art of medal engraving which is now held in so much honour in France. The number of his works is considerable. We may mention especially the medal commemorating the enlargement of Paris (1859); that of the Exhibition of 1867; and the medal portraits of Louis Blanc, Jules Ferry, de Lesseps, Turgot, Jules Simon, Edgar Quinet, and other eminent men.

COMPETITIONS.

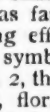
CORPORATION BUILDINGS ON THE GEORGE'S DOCK SITE, LIVERPOOL.—The period allowed to architects in which to send in competitive designs for the new tramways, offices, baths, and general offices, for the Liverpool Corporation, expired at noon on the 2nd inst. The buildings are to be erected on a portion of the old George's Dock site, and the competition for the premiums of 300*l.*, 200*l.*, and 100*l.*, which were offered by the Corporation for the best designs sent in has elicited some twenty sets of plans. The assessor is Sir William Emerson.

WESLEYAN CHURCH, LLANGOLLEN.—The foundation-stone was laid on the 27th ult. of a new English Wesleyan church which is being erected at Llangollen. The church, which will be in the Gothic style from designs by Messrs. Morley, of London, will accommodate 400 worshippers. It is being built with Cefn stone at a cost of 4,000*l.*

THE DECORATIVE ART OF THE JAPANESE.—III.

TEMPLE DECORATION—SYMBOLICAL ORNAMENT.

THE first two designs figured this week (see lithograph) have a great likeness to some of the elementary ones already given. They are, however, essentially different, and are some of the simplest of the diapers in which mystic symbols are used. It is, of course, common knowledge that religion made use of art for spreading the faith which it taught by symbols. It is a pretty theory that the priests should make use of the art which adorned the walls of the temples for instilling into the people the elements of faith —much too pretty a theory to upset. Yet I have often doubted whether the order of development was not the other way about—that art invented the symbols, and not the symbols the art. And then, again, it is doubtful whether the symbols did more than remind the people of an elemental philosophy, suggesting thoughts such as of the profundity of things, or of their continuity, or of their completeness or perfection. But we may leave such recondite subjects and consider simply the influence of symbols on the art of the East.

Here are two well-known symbols which are responsible for a great deal of ornament—the *svastika*  and the *pakwa* .

The complete *pakwa* is composed of a series of these forms, but for art purposes, however, it is not necessary to notice more of the symbol than its characteristic element. The essential difference between these two symbols lies in the returned ends; in the *pakwa* they both face the same way; in the limbs of the *svastika* they face in opposite directions. These characters are preserved in the designs which have developed from them. Fig. 1 (lithograph), though it looks so like the lozenge patterns given in the last article, is really an extension of the *svastika*. The ends of each limb are produced and returned as far and as often as they will go, the dazzling effect being the result of the limbs of the symbol being set at an acute angle. In fig. 2, the four component lozenges are separated, floral forms being introduced alternately. A lozenge arrangement is the essential feature of all the *svastika* diapers. Those developed from the *pakwa* are of a very different nature. Fig. 4 is a diaper well known to all who have even the slightest acquaintance with Eastern art. It is known to them as the "cloisonné pattern," because in a great number of the simpler enamels the *cloisons* which contain the background are arranged in this way. The pattern, too, is frequently to be met with in Chinese silks. It is, in fact, the highest developed form of the diapers which owe their origin to the *pakwa*. In the simplest of these the *pakwa* elements are arranged back to back in pairs, the pairs being afterwards set face to face with their returned ends locked. This, and another variety in which the arrangement is half back to back, are shown in the illustrations in the text. Fig. 3 is the next development in which the pairs are arranged at right angles. These diapers have already formed the subject of a paper read before the Japan Society of London, and are figured in the proceedings. It is impossible to repeat them all here, and unnecessary; three examples alone are given to show the different effects from different artistic treatment. In fig. 3 the lines of the design are in triangular fillets of wood set on a flat ground. These fillets, of course, correspond to the triangular gauging already noticed in the last article. Fig 5 is a wooden grille. In fig. 6 the pattern is sunk. For the better understanding of these and other designs which the reader may come across, I give the gradual evolution of the *pakwa* element.

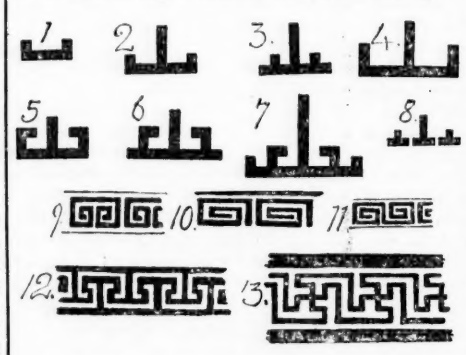
In fig. 6 there is a reversion to the lozenge diaper, the design in each being the complicated pattern which arises at the junction of the limbs of the element in fig. 4. All the other illustrations this week are different forms of wave and cloud design.

Most of my readers will pronounce the following designs to be varieties of the Greek key; as a matter of fact they are different forms of the Japanese or Chinese key.

I shall only deal with the subject very lightly, because it formed the subject of the paper already alluded to, which is to be found in the "Transactions" of the Japan Society; but it is impossible to pass it by, as it is so integral a part of the subject now in hand.

The conclusion I have arrived at is that the key developed in China, and thence, of course, passed to Japan, independently of its development in Greece. The coincidence of the design existing both in Early Eastern as well as Early Western Art may, of course, have a historic explanation. But to make it fit we must go back far beyond the time when the Dutch merchants dwelt on the Island of Desima, and the chalice of Ignatius Loyala brought comfort to the native martyrs: to times, indeed, wherein the memory of man does not run. And this being so, it seems inevitable that coincidence merely has led the designers of East and West to the same conclusion. The point I wish to insist on is that the method of the development of the key in the East is fairly clear.

We may imagine the typical designer, having covered his wall with a beautiful diaper, not quite satisfied with the result. The abrupt ending of the diaper at the junction of the wall and roof would not satisfy his æsthetic eye, and very early the idea of a "border" must have occurred to him—manifestly a much less crude way of finishing things, for the eye, instead of being so abruptly cut short in following the pleasant meanderings of the lines of the pattern, would be beguiled by another pleasant object of contemplation. Perchance this is the connotation of that peculiarly inartistic expression that a thing "looks more finished" with a border. Now the most natural border is one which has a definite relation with the design of the thing bordered. The change is less abrupt; the mind can, so to speak, continue the train of artistic thought which the eye has set up.



I think that the most superficial reader will have noticed some mysterious connexion between the key patterns given above and the *pakwa* diapers given in the page of illustrations, more especially in the most complicated one, No. 5. And the process of their development I believe to be this, that they were borders cut from the *pakwa* diapers. We have already seen an example of this development of a border from a diaper in the last article; the origin of the "star-border" from the fine diaper needing really no demonstration. Of course, when the key-border came to be developed, it would be treated as an independent design, and would be amplified on its own lines by elongation, or continuation of the lines, as was done in the case of the *svastika* in fig. 1. But if the reader will examine this

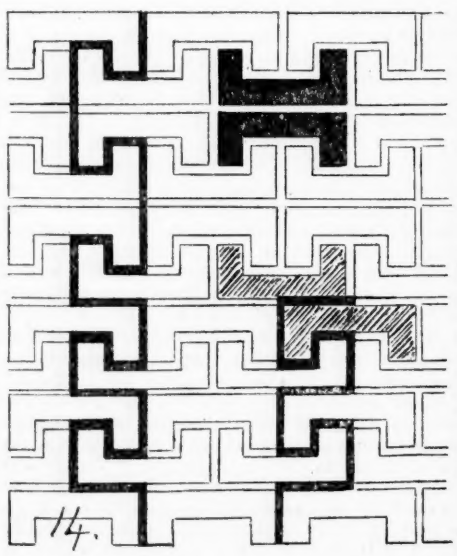
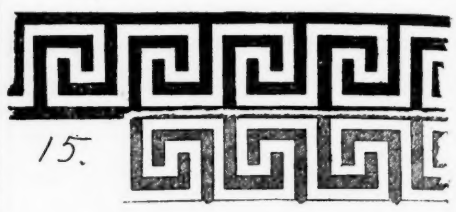


figure (No. 14 in the text), he will see in the upper part the simple back to back arrangement of the *pakwa* element, making a simple cloisonné diaper as above explained; and in the lower part the second diaper referred to, made by the "half back to back" arrangement. The construction of the key-pattern by a cross slicing of the pattern is not difficult to follow. And apart from the individual development of the patterns just mentioned, the fact which I leave to the consideration of my readers is, that by cutting a slice from any *pakwa* diaper you can get a key-border, and that you can, from any key-border, by producing its lines and doubling its breadth, get to a *pakwa* diaper. This I have done in fig. 15 in the text,



taking a Greek key from Owen Jones's "Grammar of Ornament," which gives No. 5 of the *pakwa* developments. I think I have therefore shown some warrant for the faith that is in me, which is that this slicing of the diapers to get the key border is exactly what the Eastern designers did. F. T. P.

ARCHITECTURE AND THE AGE.*

I SUPPOSE the seniors among us have given up that dream of early years—the evolution of new style from the two main branches of past architecture—many vain efforts to turn this dream into reality have disillusioned us, and acknowledging defeat we have at length settled down to the sedate practice of what at one time we treated so disrespectfully. Though able to do many things the men who wrought out these styles could not accomplish, it is not for us to regard them with compassionate toleration, for their work has both the freshness of an early time never again to occur in the history of architecture, associated with a maturity which we are, perhaps, too fain to consider the exclusive privilege of our own day.

Architecture, in possessing an ancient lineage, has an advantage over the various mechanical and constructive powers of our time. Railways, bridge building, irrigation schemes, and water supply, with steam and electricity, are modern in their application, and though some of them may have been anticipated in the far past, such forecasts were mere shadows of a shade, compared with the antecedents of present architecture, which very early in history attained remarkable development.

But while architecture may have the advantage of antiquity, the constructive arts and mechanical powers have a virility which our noble art has to take into account. An age so fertile in scientific invention and successful mechanical work requires us seriously to consider whether the architect is keeping abreast of this realised energy, and accomplishing all he can in his sphere.

The desire has gone over the civilised world for better equipment of brain and hand to meet the changed conditions of modern times.

We are no longer in circumstances like those who lived in the placid days of the eighteenth century, or even of the early part of the nineteenth. The railway and steam ship have made the world much smaller and widened human outlook. They have linked us with Colonies and lands which, having no ancient art to create and foster sentiment, have shown us aspects of construction and design largely, if not quite, independent of the architectural antecedents that are so marked a feature of the older civilised countries.

A conspicuous feature of present-day architecture is its practicalness. If the engineers and mechanicians are saturated with this quality, the architect has a share of it too. Life's incessant motion tends to it. In the easy times of a century ago, things passed muster that no architect would venture on now.

It is interesting to study the plans of the mansions erected during the eighteenth century as published in the large folios, so

* A paper read at a meeting of the Northern Architectural Association, Newcastle-on-Tyne, on February 25, by Mr. G. S. Aitken, architect, Edinburgh.

fashionable a form of architectural literature of that period, and compare them with those of our modern mansions. In the earlier instances ostentatious dignity prevailed. Great entrance-halls and suites of rooms suited to state purposes and show places, but hardly for everyday life. They were without the quality of domesticity.

All seemed to be for display and striking of attitudes. Passages of communication were often an unknown quantity, room entering from room. Convenience was sacrificed at the shrine of symmetry, and if it was necessary for external effect there should be a portico or other similar feature, the rooms behind must be content with a diminution of light, and be thankful they were no worse off. These mansions had the advantage of solidity, so much so that the lower floors were often vaulted, and if the superior inmates were compelled to lead an exalted rather than comfortable life, the servitors passed their time in conditions as depressing. If we pass from the Palladian buildings of those times, and look at mansions of an earlier period, whether of styles of the sixteenth century or of the pointed domestic, the faults in planning are similar, and no modern client, unless an extreme devotee of early domestic architecture, would dream of expecting his architect to reproduce such work in a new building, however appropriate it might be in making additions to an old one.

Of course there are instances where this has been done, but the majority of men are wise enough to look at these things from a modern point of view.

In our reasonable satisfaction at this change in domestic architecture, we would be doing injustice to those earlier men if we did not recall the crude and unsettled, and in some measure insincere or artificial life of the earlier times. The devisers of such houses could do no better than what their age demanded, and although it may seem incredible to some people, a later age—if the world endures so long—may see a race which shall look compassionately back on the contentedness which enabled us of the twentieth century to do without the comforts of a future which we, of course, have not yet imagined, and therefore do not know the want of.

One reason of the advancement is not only the excitement and friction of the time, but the frankness with which the plans of our domestic buildings are—thanks to professional journals—submitted to the study of those interested. This opportunity is one of the pleasures of the profession, and if Lord Avebury had been an architect, he might have added the study of a good domestic plan to the list of the pleasures of life. In looking on such a design, we sympathetically follow the house dweller from entrance to garden. The hall is comfortably furnished as a reflection of the hospitality that awaits the visitor ; in it there is probably some quaint or costly, or if not expensive, some tasteful ornament which the ordinary person can only see in a museum. Flowers or groups of herbaceous plants judiciously placed, give that kindly effect which Nature always so generously affords, whatever the season—autumn or winter, spring or summer. The householder may be musical, and if the dwelling be large, it is not unlikely there may be an organ in the upper gallery of a two-storied hall, its notes appealing to another gateway of knowledge—reminiscent, by the way, of the ancient minstrel gallery with its viol and lute.

From the hall or perhaps less conspicuous place ascends the staircase, which is sure to have glass in its windows surpassing that to be found in the houses of the olden time, and perhaps a gallery in the floor above opens up one of those artistic vistas which a skilled architect can introduce without cost to his client.

If the entrance to the house be so engaging, the other parts are no less interesting. The drawing-room graceful and delicate in its details, with refined hand-wrought plaster ceiling, walls covered with fabrics only possible to modern loom, or other machinery, arranged in panels to suit the choice examples of modern water-colour art ; the mantelpiece in harmony, with its metal fire enclosure framed in delicate marble, and with superposed shelves cunningly arranged with shafts and cornice to receive choice articles of virtu. The room may be arranged so that one of the windows opens into a conservatory, thus affording a perennial source of delight.

The dining-room also is interesting in its own way, and designed in a more subdued manner for its purpose, with examples of ancient and modern masters on the walls, and served from the offices by an immediate, instead of the circumlocutory plan of the eighteenth century with its far-removed kitchen.

And so might we go over the residence, and note its careful provision for the accommodation of the stores which the lady of the house cares for. Its kitchen with appurtenances so unlike—we will not say the monastic kitchens of Durham and Glastonbury, but even those devised and fitted up by the skilled brain of Sir William Chambers or the brothers Adam. Here also, to go no further, we have matter for consideration not only in the difference between the social life of the higher, but also of the serving, class, and that which obtained in earlier times—good old times we call them.

We might complete our visit to the mansion by passing into the garden with its formal border near the house, and more picturesque parts beyond, and if we choose to compare it with the famous examples attached to some of the early houses, would probably not, in some respects, find much general difference ; but this we may note—there are many plants and trees which only the enterprise and means of travel afforded by later times have been able to secure, and short of those which need to find shelter in the artificial climate of the hot-house there may be everything, or, at any rate, examples, of the chief classes, which temperate climes of all other parts of the world furnish.

We referred to the improved social conditions of the time, and the provision made to meet these, and may, before leaving the domain of our imaginary mansion, fittingly extend our visit to the not far distant stables, where we with pleasure observe the well lit and ventilated places provided for the dumb animals that, in past time, had scant consideration shown them.

While some may, and do, say that this care for the lower animals should preferably be extended to the human dwellers in the city slums, it so happens that this age of care for man's helpers is also one that is beginning to devote its attention to the sordid life found in the dense parts of our large cities, which concerns municipalities.

This latter-day problem naturally suggests civic life and the various administrative departments housed in our town halls. Town halls, cloth halls, and so forth, there were long ago, and various other buildings devoted to special incorporations. With the latter we need hardly meddle as they do not reproduce themselves or find imitators in the present day. But the municipal life, with its concrete habitation, is with us, and in a more elaborate form than that of the Middle Ages.

Our cities are paved and drained, streets lit by gas and electricity, their affairs administered by bodies of men elected by the people, who, meeting in more or less sumptuous chambers, transact business in the ear of the public ; are called on occasionally to entertain the great ones of the earth ; and possibly sometimes consider it their duty to provide rational entertainment for the people, either physical, which may suit the younger section, or musical, that pleases all healthy minds. Or it may be that a Corporation, as that of Edinburgh, possesses a well-situated observatory, to which the citizens may resort for the examination of astronomical appliances or the study of other worlds.

The cost of all this, met by rates to cover capital outlay, implies a treasurer's department, to take charge of finance, and town or city clerk to exercise general control.

Municipal buildings in our cities and towns are the result, and in them is a fertile source of plan interest, entirely peculiar to our time. No precedent for such structures is to be found in the beginning of last century, and so by a course of evolution we have, say, the old Town Hall of Manchester, begun in 1822, succeeding the Georgian-looking borough-reeves house, which stood in an obscure court off Market-street. This hall of 1822, quite out of date by the sixties, was replaced by the present magnificent building, which has been the pioneer of so many fine town halls all over the kingdom. Some, as in Edinburgh, tied by old associations, are simply the ancient buildings with modern accretions.

In the early instance of Manchester we note the lingering desire for stateliness at the cost of convenience ; erected some time after the revival of the study of Greek architecture, it is a beautiful example of Greek Ionic, happily spared by the Corporation and turned into a free library. But no architect would now think of designing a town hall which makes the approach so extensive in proportion to the business parts of the building. In our time the divisions are proportioned to each other, but that does not prevent the realisation of such fine marble halls and staircases as the City of Glasgow and other muncipal buildings present, which, notwithstanding their magnificence, are grouped in a practical way with the rooms and halls intended for reception, the town clerk's and other departments ; each series complete in itself and easily accessible to the other sections.

One great charm of the plans of both houses and city halls is their variety. As sites differ so do arrangements ; the fact of an area being square, oblong, triangular, or any other intermediate shape, makes all the difference in the scheme of a municipal building ; and the needs of a client, the idiosyncrasy of the architect, or the aspect of the spot, will be the means of creating a type of dwelling-house quite different to any devised before. And this may at the same time be done with all deference to past work, while expressly suited to modern times.

Yet sometimes knowledge and intimate study of old architecture do not always make for good planning, the power of association being sometimes too strong. Is it wrong to say of the London Law Courts, the late Mr. Street's greatest work, that knowledge occasionally weighed too much with the designer, precedent counting for more than it ought, and yet, withal, how interesting the grouping and beautiful the detail, old in spirit, yet modern in expression, the work of a genius shaping everything to accord with his great learning. It has been referred to as possibly the final illustration of the use of Pointed architecture in a public building. But why should this be so and the style fade away? Beauty, vigour, and freshness are there, and reaction will be sure to set in at some future time in favour of the resumption for secular purposes of so fine a field of architecture.

Somehow the London Law Courts suggest church architecture, and this, I suppose, because their distinguished designer was essentially a church architect. With a knowledge of and sympathy with old ecclesiastical work that have been the lot of few, he has given many varied hostages to church art. Gladly would some of us have seen him entrusted with the erection of St. Mary's Cathedral in Edinburgh ; the result from his hands would have been interesting. The present building is good, but the distinguished author of it is already in evidence in several parts of Scotland, and Street has left nothing in the North, except the private chapel at Dunecht and an obscure chapel at Dundee.

But the field of Episcopal church architecture that Scott, Street, Pearson, and Butterfield occupied, and which is still filled by able living men, represents probably only one-half of religious life in England ; the other, being covered by Nonconformist church architecture, that devised to meet a different form of worship, has created, so far as plan is concerned, another phase of church meeting-place. Preaching, and not ritual, has to be considered, and hence the auditorium instead of the long-drawn processional aisle. But while this is so, mediæval architecture has for a long period influenced and will probably for a considerable time to come control the design of Nonconformist edifices. This influence cannot be due to any power of religious associations which it is undoubtedly in possession of, because these associations are adverse to the spirit of Nonconformity, and at the time of the Reformation in Scotland led the Presbyterians to adopt a form of church far removed from that in which Catholicism and Erastianism found a home.

We must look in some other direction for the reasons which give Pointed architecture so powerful a hold on organisations utterly opposed to the hierarchical and ritual mode o worship to which its genesis and developmen are due.

One reason sometimes adduced for the inclination that most of the forms of Christian belief have to the use of mediæval church architecture for their places of worship is the upward, aspiring tendency of its lines, in contrast with the earthward trend of Classic architecture, and their consequent elevating effect on the religious emotions of the worshipper. But this is an opinion resting only on the surface, not going so far as to furnish us with a

principle. If we could present an argument which has reason for its basis, we would at once arrive at the cause for the preference. And this we are most likely to find in the general principles on which the Creator has carried out His works of Nature. They are two in number: first, inward, or centripetal force; second, outward, or centrifugal; or their architectural equivalents—vertical and oblique pressure. We are safe in assuming that it must have been from these already existing principles that man, imitating his Creator so far as he could in his finite way, derived his foundation for architectural work. And, of the two, he was at first more likely to choose the most elementary—the vertical or inward—as best suiting the early stage of art thought and building capacity which he had reached, and hence the architecture complying with the laws of vertical pressure, as we have it in the post and lintel of Egyptian and Classic art.

But as time went on the other principle, by the law of evolution, presented itself to his service. Tired of early forms, his mental and spiritual outlook, wider and higher, finding this unused system of outward or oblique force ready to his hand and suited to his new mood, it provided him with the forms of Pointed architecture. And it is in Pointed art, as the result of this second law of construction, that we must find the reason for the preference by modern church builders, Episcopal and Non conformist alike.

But there is another argument for the preference of Pointed to Classic architecture which appeals to Episcopal and Nonconformist alike, and that is the superior ethical qualities that appear in the former. This is shown, for one thing, in its endeavour to secure effect at a minimum of constructional outlay.

It is remarkable what an effort Greek architecture makes before it realises itself in a successful work of art. One of the finest buildings in the country, if not the best example of modern Classic architecture — St. George's Hall, Liverpool, notwithstanding—is the Royal Institution, Edinburgh. It is in the Greek Doric style, designed by its architect, W. H. Playfair, from a modern point of view. If we imagine all detail removed that is not necessary to construction, how bald an affair it would be—its porticoes, wings, and lateral rows of columns would have to go. We could not apply this process of "thorough" to a Pointed building. Every part is there as a constructive necessity, and can furnish an ethical reason for its presence, and that is partly what gave Pugin's "First Principles" their force.

And this ethical reasonableness is invaluable in grouping and detail. If a building is so equivocally designed as to require explanation, there must be something morally wrong with that design. If an architect in his wish for something new constructs an arch in a façade that depends for its stability on a concealed girder, that arch ought never to have been so formed. It has no visible means of resisting thrust; offends the mind not seared to the difference between right and wrong; it makes an ordinary observer feel uneasy at the designer's temerity—in short, it has to be condemned for its ethical shortcomings. This objection would not, of course, apply if the girder appeared as part of the façade, nor does it bear on a visibly tied hammer-beam roof, Italian porch, or baldacchino. The Italian porch might have been designed to make the ties needless, but it is straightforward in its wrongness.

Perhaps we may put the difference between Classic and Pointed thus: Classic has intellectual beauty, Pointed has both intellectual and moral beauty. At the same time, no one would desire to have had the Edinburgh building other than it is. It is a masterly piece of composition, and is sure to afford pleasure to any cultured observer who approaches it from the north and notes the clever way in which outline is gained by the annexed wings and the statue of her late Majesty on the pediment. These secure it a form singularly beautiful and dignified, with its mass effectively broken by the light that passes through the wings, and the deep shade behind the columns.

I do not know whether it was the possession of buildings like this, and the aversion from reproducing them in more recent times, that induced an Edinburgh citizen to say there were no longer any great architects. But, perhaps, an architect is none the less great when in his desire to secure useful qualities in his work he deliberately sets a style aside which might win reputation to him in the eyes of those who look no further than the superficies of a building. But the criticism will do service if it leads us to design in a large manner, whatever the style may be.*

CARPENTERS' HALL LECTURES:

WHERE TOWN AND COUNTRY MEET.

THE second of the Carpenters' Company's spring lectures on matters connected with building was given at Carpenters' Hall, London-wall, on Thursday evening last week, by Dr. G. V. Poore, whose subject was: "Where Town and Country Meet." Mr. Percy Preston, Senior Warden, presided over a large audience, and briefly introduced the lecturer.

Dr. Poore said the question of getting our crowded population into the country from the towns was very much in the air just now, and the question was: how to bring about that very desirable end. Some people talked as though there were no difficulties in the way of doing this, but that was not so. That it was desirable to get people into the country was certain, though some people declared that London was the healthiest place there is. Considering its size, the health of London was good, though it was difficult to come to any definite conclusion as to the real state of health in London compared with rural districts. One of the difficulties was that as soon as London people were taken ill they ran away to the country, and invalids, especially chronic invalids, were sent out of our great cities into healthier parts. According to the statistics of the Registrar-General, in healthy districts, out of every 100,000 children born 15,000 die in the first five years of life, but in unhealthy districts—say, the old Manchester township, the old city, the city proper, where there are a great many poor houses and the conditions of life are very undesirable—there, according to Dr. Tatham, barely 65,000 were left at the end of five years, so that the mortality was twice as great in the unhealthy as compared with the healthy district. Again, a child born in a healthy district had a life expectation of thirty-two years, but in Manchester city only twenty-eight years. If it survived the first five years its life expectation was nearly sixty years in the healthy district, but in Manchester it was about forty-three years. The expectation of life in a healthy district of a man aged forty-five years was about thirty-two years, but in the unhealthy district it was only sixteen. But there was one curious exception to this rule: if a person lived to be eighty in Manchester city his expectation of life was greater than that of his fellows of the same age living in the other districts—perhaps because he was such a tough customer to have lived so long in such an unhealthy district. Dr. Shirley Murphy had prepared some "mortality figures" for the year 1893, taking the mortality of the whole of London as 1,000. Reducing everything to that standard, the mortality figure for England and Wales was 860. In London districts, corrections having been made for age and sex, Hampstead was 673, Paddington 762, Wandsworth 726, Lewisham 704; but in the centre of London the figures were very much higher. The highest figure of all was in the Strand, where the people died largely of tuberculosis and respiratory diseases—though now the Strand was being greatly altered, and its population reduced by expensive street improvements. The injury to health and development by residence in large cities was shown in the difficulty there was in getting from the great towns recruits for military service. There was not only congestion of population in a great city like London, but there was also the expense of living. London was really a most elaborate, highly-finished, and expensive machine, with its supply of water under pressure, its sewerage system, paving, gas-pipes, electric-wires, &c., and all these facilities meant increased rates and taxes. The rental of the house he occupied in Marylebone, when he first came to London thirty years ago, was 180*l.* per annum, and the municipal rates were 30*l.*; now, without any increase in accommodation, the rental of that house was 250*l.*, with proportionately increased rates. The City of London had, in consequence of the facilities he had mentioned, rather recklessly allowed an increase in the cubic contents of the majority of houses in its centre, and office accommodation for 1,000 people might now be provided on a site which formerly accommodated 300 or 400 people. It followed that there was crowding in the streets and increased traffic difficulties, for we had increased the cubic contents of our houses without proportionately increasing the width of our streets. London was a place full of excitement, and was tolerable for a man in the prime of life, but it was a terrible place for children, and it was difficult to say how they existed in some of the overcrowded places in London. Houses which were formerly occupied by single families were now let in tenements, and those tenements seemed to be crowded by children. It was true the streets formed an excellent playground for the children, but still children living in darkness and squalor and dirt were at a great disadvantage. One of the expenses of London was the dirt—the dirt and dust and "blacks." Excepting manufacturing cities, probably there was no other city in the world so dirty as London. Conifers grew with great difficulty in such places as Regent's Park gardens and even Kew, for their leaves got coated with the soot of London.

The advantages of living in the country were many, and the first was increase of health as indicated by the statistics. Then children were obviously benefited, for there was not that physical and moral contamination for them in the country that there was in overcrowded towns. Then as to education; there were good primary schools everywhere, happily, but in the country there was the education of living there, and children learnt from nature what they could not learn in towns. Some children got to believe that the world was all paving-stones and barrel-organs. The liveliness of London that was sometimes referred to soon palled, but the properly educated person ought never to be dull in the country. Where there was any element of rurality left in a city, it should be cherished as a great possession. The taxation of unoccupied spaces at site value would result in more houses being erected, to the detriment of the health of the people. Where a garden existed, public or private, it was a benefit to all the houses around, for it kept them apart. The best defence of the system in vogue for centuries for disposing of the dead was that it necessitated open spaces, often covered with herbage and trees, and the cemeteries of London had done more good than harm, though he did not approve of the piling up of vaults in city churches.

As to getting into the country, there would always be a difficulty, for the difficulty of widening streets to take trams, &c., was great, but London must be taken as it is. It had come down to us from our ancestors, and on the whole we must be thankful for it; but in South Africa new cities were being laid out every year, and all these problems should be thought out. One of the difficulties of residence out of town was as to trains; one had to break away from one's work to catch them, sometimes to find that there was a breakdown, or that the train was late because of fog. The expense of a motor was very great at present. In the old days a City merchant lived over his shop, but then there were excellent gardens attached. What probably had a lot to do with the abolition of the garden in that part of London was the New River Company, for when the New River was brought into London there was no longer any necessity for a well, and that was one thing which did away with city gardens. As to the Garden City movement, that must command everybody's sympathy, but unfortunately one did not see how it was to be realised. The thing was on too expensive lines, and the attempt to take into the country all the conveniences we have in the city would lead to such high rentals that the garden city would be a place for the rich alone. On the other hand, some of our big manufacturers had made model villages for their workpeople, but they did not disguise the fact that, as a building speculation, it did not pay; that the rents charged did not pay a sufficient interest on the money expended; but no doubt it paid indirectly. Still, it was not to be expected that philanthropists generally would provide model villages, and the great problem was how to get the labouring man or artisan a house and a garden at a rental which would pay. As to a garden, he defined that as a place that was productive. At Regent's Park just now could be seen a beautiful lot of crocuses and hyacinths, and this was one of the luxuries one got for an almost ruinous rental; but it was not

* To be concluded in our next issue.

gardening as he understood it. Gardening to him meant tilling the soil and gathering the crops.

Dr. Poore then described his experiences some years ago in a village in the Thames Valley. The rates went up from 4s. 2d. in the pound when he first went there to 8s. 7d. when he left, when they were still rising. The authorities borrowed 77,000*l.* for sewage works, which was increased to 135,000*l.*, and they produced with the money an evil-smelling, fly-breeding marsh. Why he was called upon to pay the rates he did not know, for he dealt with his own sewage and refuse in his garden without troubling the authorities at all. Though the authorities were having trouble with their sewage works, they went on encouraging building operations, so adding to the resident population. In his opinion, there ought to be an equitable adjustment of sanitary rates, and he thought that that could be arranged in some way. Sewage schemes, if properly manœuvred, were sure to be adopted, for so many people thought they were going to be benefited. Unfortunately, there were those who were not benefited, and it was hard that the interests of one class should be considered and the interests of another class ignored. In the village he was referring to there were nice gravel paths when he first went there, but the authorities came and spoilt them by putting down great Swedish granite curbs and a patent pavement—a ridiculous extravagance, which caused the rates to go up. When the sewers had been put in, the speculative builder arrived, and a number of houses were erected, and "into this rural spot came an amount of vulgarity which was most undesirable." Then there were the model by-laws. It was quite right to have the by-laws, but the speculative builder adopted the minimum of 25 ft. for the back garden in hundreds of these houses, and then said it was what the Local Government Board recommended. These back places were yards, not gardens, and they were part of what he must call suburban slums—it was not much of an improvement to take people from the towns, and put them into such places. There could never be a garden city where there were sewers. The wholesale urbanisation of rural districts was, if possible, to be avoided, for, while it might be to the advantage of some, it was to the disadvantage of others.

On the motion of the Chairman, the lecturer was accorded a hearty vote of thanks, and the meeting terminated.

BUILDERS' FOREMEN AND CLERKS OF WORKS' INSTITUTION.

THE annual dinner of the Provident Institution of Builders' Foremen and Clerks of Works was held on Saturday, last week, in the King's Hall, Holborn Restaurant. Mr. F. Higgs (Messrs. F. & H. T. Higgs) occupied the chair, supported by Messrs. E. B. l'Anson, C. V. Hunter, C.C., E. J. Brown (President, London Master Builders' Association), H. J. Treadwell, A. Tanner, Major L. Whitehead, and others, the company numbering 541.

The loyal and patriotic toasts having been honoured (Mr. Hunter proposing, and Major L. Whitehead responding to, "The Imperial Forces"),

The Chairman proposed the toast of the evening, "The Provident Institution of Builders' Foremen and Clerks of Works." He said that every good foreman should be careful, accurate, and shrewd, and should have patience, forbearance, and tact, personal magnetism, organising power, fidelity to duty—in fact, character. That was an ideal which could be striven for, though never altogether attained to, perhaps. The clerk of works should be honest in purpose and action, disinterested, fair and unbiassed in judgment, open-minded for new methods and ideas, not wanting in a due sense of proportion, and able to see two sides to a question. That, too, might be the ideal, but he thought it was not unattainable. It should not be forgotten that those who had striven towards the attainment of the ideal had always been the world's regenerators. The ideal foreman and clerk of works did not quarrel, but pulled together, for though there might be two ways of looking at a work, it must not be forgotten that there was only that one work. Their calling was an honourable and ancient one, and their Institution itself was becoming quite venerable, having just passed its diamond jubilee, and membership of the Institution was a certificate of capacity and character. The Institution provided for the future, and granted pensions without waiting for the Government to do so. The builder's foreman's life was a strenuous one, and from the Institution he could get comfort in retirement. Moreover, the Institution promoted thrift, and generosity towards those who were unfortunate. In accepting the chairmanship he had imposed the condition that a big effort should be made to enlarge the scope of the Institution, for the membership was very small. The number of members this year was only 142, and their subscriptions amounted to 244*l.* From outside subscriptions and donations was received last year 370*l.*, and the income from investments was 266*l.* Thirty cases had been relieved, the amount of the pensions and grants given was 523*l.*, the cost of management was 131*l.*, and there was added to reserve (now 6,627*l.*) the sum of 227*l.* As a result of his suggestion, a circular setting forth the advantages of membership was sent to firms who might have builders' foremen and clerks of works. Why the Institution had not a greater membership he did not know, for in London there were 2,000 builders, to say nothing of those in the country, and yet there were only 142 members of the Institution! There ought to be a membership at least ten times as large. Architects should support the Institution, for they were entirely dependent on clerks of works and foremen for the proper interpretation of plans and ideas, and their interests, to say nothing of the clients, were entirely in the hands of clerks of works and foremen. Builders, also, owe a great deal to their foremen, and sometimes to the clerk of works. The employer's entire interests—financial as well as executive—were in the foreman's keeping. The wage paid did not make things equal, and he would give little for the foreman who thought that he was working just for the money he received: there was something more than that to be thought of. Clients and merchants should support the Institution, but, above all, foremen and clerks of works should support it themselves, if only because one day they might require its aid.

Mr. J. Beer, corresponding secretary, who responded, said there was a feeling abroad that the Institution did not wish to increase its membership, and that they wished to be very exclusive. Such was not the case, though years ago, perhaps, such a belief may have been correct. It was now exceedingly easy for a craftsman to become a member if he were a worthy man. All a candidate had to do now was to get a subscriber to propose him, and if he were a suitable candidate he would be elected. Then it was said that the Institution had too much money, but it was entirely owing to the reserve fund that they were able to do the good they were doing. They were always glad to receive suggestions, but unless they were to alter the rules every year they could not always adopt the suggestions they received. The chairman had stated that there were 2,000 builders in London; only thirty-three subscribed, and the Institution derived most of its support from merchants and friends.

Mr. J. Carmichael then proposed "The Architects and Surveyors." He had, he said, learnt greatly to appreciate the ability, the high attainments, and the integrity of the architects and surveyors of London, though, of course, there were architects and architects and surveyors and surveyors. The architect of to-day had not only to be an architect in the ordinary sense of the term, but he must have a knowledge of engineering, electricity, the value of land, ground rents, and he must also be something of a lawyer to understand the Building Act and other regulations. With the toast he coupled the name of Mr. E. B. l'Anson.

Mr. l'Anson, in response, said he supposed that in a few years' time the architect-surveyor would cease to exist, but an architect carrying on practice east of Temple Bar found it necessary to know something of both professions. His practice had taken him all over the country, and with few exceptions the foremen and clerks of works he had met had been men of resource and integrity, and had been of great assistance to him.

The Chairman here announced that the sum of 227*l.* 15s. had been collected or promised as donations towards the funds of the Institution. Last year money came in until the end of March, and he hoped it would be so this year.

Mr. H. J. Treadwell then proposed "The Builders and Contractors." In speaking of foremen and clerks of works, he said that if difficulties occurred between them they should compromise and not quarrel. So far as the builders he was acquainted with were concerned, speaking as an architect and as one having the clients' interests at heart, he must say that they carried out their work in an excellent manner.

Mr. E. J. Brown having suitably responded,

Mr. F. Hann, financial secretary, proposed "The Governors, Trustees, Donors, the Subscribers, and Visitors." Last year they spent all they received from both members' subscriptions and the subscriptions of donors and subscribers. The chairman that evening had headed the list by subscribing 25*l.*

Mr. A. Tanner, in reply, said that engaged as he was with the London Building Act he might be allowed to say a few words on the London Building Acts (Amendment) Bill. The Bill is designed for the purpose of minimising the effects of fire on almost all classes of buildings, dwelling-houses, shops, warehouses, and factories, it being held by numerous authorities that the present building provisions for the prevention of fire were insufficient in view of the disaster which occurred at the Queen Victoria-street fatality. The provisions proposed by this Bill were somewhat drastic and far-reaching, and enormously precise and particular, and he thought it would be well for the owners of property to be alert and vigilant to represent their claims and objections by petition before the Committee of the House or otherwise prior to the Bill becoming law. It was possible the House of Commons would not pass the Bill as at present drafted, but it had to be remembered that there is a strong feeling that something should be done without delay to increase the power of the prevention of fire clauses embodied in the present Building Acts. It seemed that a few simple precautions of an immensely useful character could be passed by the London County Council without the enormous labour and the worrisome espionage to all concerned which this Bill would entail; such, for instance, as the absolute prohibition of the use of wood match-boarding for ceilings, walls, and partitions, unless in the case of walls fixed solid on to the work in any building small or great. As a District Surveyor he always shuddered when he observed a match-boarded ceiling being fixed in the ordinary way in any room of a dwelling-house, and he should refuse to sleep in a room over such a ceiling. Then, again, all floor boards in every building beyond a certain size could be nailed solid on to concrete at every floor level. Two such provisions as these would be very efficient, not unreasonable and inexpensive in application, and tend very much to preserve life. Great safety was already secured by the requirements alone of the insurance societies, and more might be done in this direction. Those societies had one salutary regulation, among many others, double iron doors in warehouses being required to be 6 ft. apart, whereas the Building Act is satisfied with 2 ft.

The toast of "The Chairman" having been honoured (proposed by Mr. J. Stapleton, Treasurer), and the Chairman having replied, the proceedings terminated.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, Sir J. McDougall, Chairman, presiding.

Loans.—On the recommendation of the Finance Committee it was agreed to lend Shoreditch Borough Council 16,245*l.* for electric lighting; Camberwell Borough Council 5,250*l.* for channelling and sewer works; Woolwich Borough Council 800*l.* for works at stoneyard, Barnfield-road, Plumstead; and Lambeth Borough Council 4,784*l.* for sanitary conveniences at Loughborough Junction and Stangate.

Theatres, &c.—The following proposals were agreed to:—

"Covered way, West Brompton entrance, London Exhibition (Mr. A. O. Collard).

One-story buildings for the accommodation of thirty-five native Bishareens at the London Exhibition (Mr. A. O. Collard).

Alterations to lavatory and the second-circle entrance at the London Pavilion (Messrs. Wylson & Long)."

The Distribution of Fog.—It was agreed "That the Secretary of the Meteorological

Office be informed that the Council regrets that it does not see its way to incur any further expenditure for the continuance of the inquiry into the occurrence and distribution of fog."

Mr. Phillimore suggested that it was a penny wise and pound foolish policy to refuse to spend the 200*l.* asked for in going on with the inquiry.

Lord Monkswell said the General Purposes Committee saw little, if any, chance of getting 200*l.* worth of advantage for their money.

Street Widenings and Tramways.—Considerable discussion took place over a proposal of the Improvements Committee to contribute two-thirds of the net cost of widening a portion of King's-road, Chelsea.

Mr. Benn moved an amendment to add the following words:—"Subject to the Borough Council undertaking to give consent when required to a tramway along King's-road."

The amendment was carried on a division by seventy-two votes to thirty-four. Subsequently, the amended resolution was referred back to the Committee to allow of negotiations taking place with the Local Authority as to the exact wording of the condition.

The Works Department.—The Highways Committee recommended: "That the expenditure on capital account be authorised of a sum not exceeding 21,100*l.* for the erection of the sub-stations and workshops at New Cross and Camberwell, required in connexion with the electrical working of the County Council tramways; that the work be carried out without the intervention of a contractor."

Mr. E. White, in moving that the recommendation be referred back, said the proposal was an entirely new departure, for it had always been understood that the estimate should be based on drawings, specifications, and bills of quantity. Now it was proposed by the Highways Committee to estimate the price on cubing, and to pay 5 per cent. above the priced bills of quantities of the Mill-lane Lodging-house. A lodging-house was a very different building from a car shed, and he submitted that instead of an increase there ought to be a decrease in the estimate for the car shed.

Mr. Gaskell seconded the amendment.

Mr. Cousins remarked that the policy of the Works Department was becoming most extraordinary, and it was now suggested that they should be given work on a basis which was certainly not fair to the ratepayers.

Mr. Benn said the essence of the contract was rapidity of erection, and the proposal was made on the advice of their architect.

The amendment was defeated and the recommendation agreed to.

The London Building Acts (Amendment) Bill.—The Parliamentary Committee reported as follows:—

"We have given our most careful consideration to the course to be adopted with regard to this Bill, which has now been read a first time in the House of Commons. Instructions to us to promote the Bill were given by the Council on November 4 last, and time did not permit of our ascertaining the views of the various authorities and bodies concerned before submitting the Bill to the Council for approval. We have not at the present moment been furnished with the views of some of the more important technical bodies, but, from such observations as we have received, and from information which has reached us from various quarters, we regret that we are driven to conclude that the Bill will, if proceeded with in Parliament, encounter very considerable opposition. We are advised that many of the suggestions which have been received would form bases for useful amendments of the Bill in detail, and that, had time permitted, the Bill might with advantage have been in some particulars differently drafted. It is with great regret that we arrive at the conclusions embodied in the recommendation which we submit concerning a measure for the protection of human life and property from the perils of fire, and in doing so we are influenced by the knowledge that the Council will, with more time at its disposal, be in a position, if it adopts our recommendations, to place before Parliament in the session of 1904 a more complete and perfect measure. It is important that any step in the direction of withdrawing the Bill should be taken without delay in order that such authorities and bodies as may wish to take action with regard to the Bill may not be put to any unnecessary expense and trouble. We accordingly recommend—(*a*) That, notwithstanding any previous resolution of the Council, a Bill to amend the London Building Acts be promoted in the next session of Parliament, instead of in the present session; and that the London Building Acts (Amendment) Bill, 1903, be not further proceeded with. (*b*) That the Bill, as at present drafted, be referred to the Building Act and Parliamentary Committees with a view to their advising the Council, after consultation with such persons and authorities as may be desirable, as to the ultimate form the Bill should assume."

The Fire Brigade Committee also reported as follows:—

"We have had under consideration the report which the Parliamentary Committee are presenting to the Council with regard to the London Building Acts (Amendment) Bill and, as the Committee responsible to the Council for the duty of protecting life from fire in London, we desire to state that we disagree with the recommendations contained in such report, and that we endorse the opinion which we understand the Building Act Committee have expressed that it is highly desirable in the public interest that the Bill should be proceeded with in the present session of Parliament. In the event, however, of the recommendation 2 (*a*) of the Parliamentary Committee's report being carried, we are unanimously of opinion that the Fire Brigade Committee should be associated with the Building Act Committee and Parliamentary Committee in the further consideration of the Bill, and we have, therefore, asked our chairman to move an amendment to recommendation 2 (*b*) to effect this object."

This gave rise to a long discussion, and the Chairman of the Parliamentary Committee (Mr. Radford) refused to move the reception of the Report.

Dr. Napier, in moving the reception of the Report, said the agitation which was going on against the Bill would not have affected them did they not consider it would be in the interests of the Bill that it should be withdrawn for a time. The Parliamentary Committee believed the Bill would have little chance of success in its present form. With increased experience and additional expert experience, the Bill might be presented to the House of Commons in a form which would substantially carry out the objects of the Council, and be accepted by Parliament.

Mr. Radford moved as an amendment "That the recommendation be referred back to the Committee, with instructions to proceed with the Bill in the present Session." He contended it was the duty of the Parliamentary Committee to carry out the instructions of the Council. The reasons for proceeding with the Bill were as cogent now as they were when it was first introduced. Question 18 submitted to the jury in the Queen Victoria-street fire was as to whether, had proper exits been provided, the loss of life might have been partly or wholly prevented; and the answer of the jury was, "Yes, altogether prevented." And the jury considered that the provisions of the Act as to means of escape from fire in high buildings should be made retrospective, and it was to carry out that recommendation that the Bill had been introduced, though the recommendations of the jury had been improved upon in that it had been decided to make the limit of height 50 ft., and not 60 ft. It had been said that this was panic legislation, but he hoped that no attention would be paid to that. Legislation was prompted in order to remedy some evil which had been proved by experience to exist. The Home Secretary had advised that the Council should undertake legislation, not in the form of an amendment of the Factory Act, as was first proposed, but by way of an amendment of the Building Act, and on that intimation the Building Act Committee had taken the matter up. Great care had been taken in promoting the Bill, and he did not think there was sufficient reason for withdrawing it. They had not heard from the Home Secretary that he considered the Bill dangerous, and as to the opposition of owners of property, of course that was to have been expected. If they always gave way to opposition of that kind they would never get fresh legislation. The Bill was a good one, and if persevered with he believed it would pass, and if passed, it would be the means of saving many lives.

Mr. Taylor seconded the amendment. He remarked that they might have several fires before next year, and who would be responsible if lives were lost? There were thousands of dangerous buildings in London—buildings which had been erected for one purpose and converted into another. Many of these buildings had been erected for residential purposes, some of them a century ago, and they had been converted into warehouses, with only one staircase. At the Queen Victoria-street inquest the City said that the Council should have done this and that, but now that the Council had promoted a Bill to rectify the evils which existed the City took up a very different line. The District Surveyors had been consulted, and the only objection to the Bill that they had was that it was not drastic enough.

Dr. Napier said he had a sheet of recommendations from the District Surveyors.

Mr. Taylor said the Surveyors' Institution might be opposed to the Bill, but he did not think the District Surveyors were. There were some premises in London the top story of which was used as dormitories for the assistants, and underneath there was a large amount of inflammable material, and the assistants had no means of escape in case of fire.

Mr. Hardy said that the Bill was badly worded and had been prepared in a hurry. The meaning given to the wording of the Bill by the Superintending Architect of the Council was different from that of the opponents of the Bill.

Mr. Shepheard observed that there was a strong opposition, not to the principle of the Bill, but to the various details from the beginning to the end. He wanted the provisions contained in the Bill as much as any one, but the Council would be more likely to succeed if they postponed the Bill than if they went on with it. The District Surveyors had brought objection after objection to the Bill, though they said that they wanted something like the Bill under discussion. So far, nothing had been heard of the views of such important bodies as the Royal Institute of British Architects and the Surveyors' Institution, and the Council was courting disaster if it proceeded. There was no chance of getting the Bill through unless they threw up the retrospective clauses, and he would rather withdraw the whole Bill than do that.

Mr. Sankey considered there were three reasons why they should not proceed with the Bill. First, it was a hopelessly bad Bill; secondly, it was contrary to the wishes of every community in London; and thirdly, it was a Bill which would never pass into law. Many parts of the Bill were very stringent. For instance, notices had to be served upon the owner, and if he did not comply with the requirements within twenty-four hours the place might be shut up! The occupier was not informed.

Mr. McKinnon Wood said they were not asking the Council to go back on its policy of improving the safeguards from fire, but the recommendation was merely a question of tactics and prudence. The building in which the Queen Victoria-street fire took place was a case of a building being adapted as a factory and not being properly used. Before the Bill could pass there would have to be conferences with the architects and surveyors, as well as others. The indefiniteness of the Bill was its great danger; it was so indefinite that people were more afraid of it than they need be.

Mr. Cousins said that he had heard from a well-known architect that to carry out the structural alterations necessary, according to the Bill, in some buildings would entail a cost of over 3,000*l.*

Mr. Howell J. Williams said that the building trade objected to the Bill because it was entirely in the hands of the Building Act Committee, which they felt was dominated by one or two men. Architects and builders felt that some alteration in the law was necessary, but they objected to such a Bill being sprung upon London without the people most concerned having had something to say about it. If the Bill had been drafted as suggestions, and had been sent round to the various bodies concerned, asking for their assistance and co-operation, the Council would have received help.

Mr. Alliston said the opposition came from the City because the City was chiefly affected. There was no need for such drastic and tyrannical legislation. They were anxious to protect people from fire, but the Bill went beyond anything that was required, and would inflict great injury on a number of people.

Mr. Allen said the Fire Brigade Committee had a serious responsibility laid on them with regard to preventing loss of life from fire, and they thought the Council would be well advised to go on with the Bill. The Chief Officer of the Fire Brigade had many times said that an amendment of the Building Act was required.

Mr. Dickinson said that property was sacred in the House of Commons, and that being so, he was in favour of postponing the Bill.

On a division the amendment was rejected by 66 to 27.

The recommendation of the Committee having been amended, so as to include the

Fire Brigade Committee in (*b*), it was agreed to.

Subway for Shallow Tramways.—On the recommendation of the Highways Committee to expend 208,000*l.* on the construction of the tramways subway authorised between Southampton-row and Victoria-embankment,

Mr. Beachcroft said that owing to the action of the Finance Committee 70,000*l.* for the payment of the cost of the acquisition of the necessary lands and easements in connexion with the construction of the subway had been struck out. It seemed to him it was false economy to take power to spend 208,000*l.* and not take the power for the 70,000*l.* It would be better to postpone the whole matter, and he moved that the recommendation be referred back.

Mr. E. Collins seconded the motion.

Further discussion on the matter stood over for a week.

The Council adjourned at seven o'clock.

ARCHITECTURAL SOCIETIES.

LEEDS AND YORKSHIRE ARCHITECTURAL SOCIETY.—A meeting was held on the 26th ult. of the members of the Leeds and Yorkshire Architectural Society, presided over by Mr. Butler Wilson, at which a paper was read on street improvements in Leeds, by Mr. Fredk. Musto. Mr. Musto claimed that as citizens, and still more as architects, they were concerned in whatever made for the improvement of the city with which they were connected. Leeds had much improved, but it still missed the mark, for whilst streets had been made wider, they still remained throttled at their necks through lack of a scheme. The fact was that the laying out of the lines for the main streets and public buildings of the city should not be left to chance and spare moments. Leeds did not make a very favourable impression upon those who entered it. He did not think of comparing the town with Oxford or Warwick, or a city like Bristol or York, which made up for the absence of dignity by the presence of old-world charm. But he fearlessly declared that in the aspects of its streets and most of its buildings Leeds was far behind Manchester, Liverpool, and especially Glasgow. There was an air of something almost amounting to squalor about the town that even the City-square and Boar-lane could not destroy, and that Briggate would certainly not reduce. City-square served to provide a good first impression, and he hoped it would be long ere its dignity was spoiled by the ceaseless careering of trams round it as a general changing station. It was far better than Forster-square at Bradford, though the vista from the latter up Market-street was very fascinating. But City-square badly needed the statue, which would help to mitigate the bad effect of the Post Office buildings; and he thought the circular balustrade, enclosing nothing and cutting off the sight of the base of the new buildings, was an absolute waste of money. The widening of Infirmary-street to 75 ft. was not a crying need. Though it was too narrow, Park-row was a street of which they might well be proud, happy in the diversity of its buildings and the way they were caught "end on" together with the appearance of the Exchange, which he considered the second best building in the town. The Cathedral was to be moved, and the vista, he was afraid, closed by a gradually diminishing line affording a flank view of shops. Great George-street had now arisen from its desolation, and was becoming an important street, with at least one building in it which would be an object of pride to architects. In time he considered it would form part of an important "through line" east to west, relieving Upperhead-row, and connecting with Quarry-hill. The widening of the lower part of Woodhouse-lane was commendable; but what were the authorities aiming at? Was there any scheme or definite line, and, if so, how far did it reach? Guildford-street had been getting widened for years past. Of course, the wretched shanties at Albion-street corner were doomed; but what lines were to be pursued? If some of the money which had been spent on making some of that back street, Land's-lane, rather less of a back street, had been spent in improving Guildford-street, the gain in appearance would have been as great as in point of convenience. Briggate possessed all the materials for an effective appearance some day. There was the promise of a building on a good scale in the Grand Central Hotel; but when they thought of Corporation-street, Birmingham, or Lord-street, Liverpool, what a contrast! Boar-lane, though presenting no single building of which the design was a pleasure to contemplate, was in the sum total far more worthy and dignified. The Vicar-lane scheme was good; but had they noticed its rise and fall and snake-like windings, and how, when approaching from North-street, the new market buildings hid their face. A straight line would have left the Dispensary intact, and run beyond Kirkgate and the Corn Exchange to Swinegate. He did not see how the new street from Briggate to Albion-place could relieve Commercial-street or be a success. It began badly, and was not quite in line with Albion-place. With regard to what might be done, he suggested a line of access from the end of Roundhay-road to Woodhouse-lane, near Carlton-hill. Most of the line existed already, but there was no leading thoroughfare. He would like, too, to see a street cut in prolongation of Oxford-place by Park-square to Park-place; and a better access to the Yorkshire College and Grammar School than was provided by the present College-road, with its plentiful supply of back areas and middens. As for Victoria-square, he would leave that in their hands. It rested with the authorities to say if Leeds was always to be left behind by other and smaller cities, or whether, by doing things in a bold way and going straight forward, and having an ample and properly worked scheme, they would attain the position due to the size, population, and prosperity of the city. At the close, a vote of thanks was accorded to the lecturer, on the motion of Mr. G. F. Bowman, seconded by Mr. W. H. Thorp.

EDINBURGH ARCHITECTURAL ASSOCIATION.—At a meeting of the Edinburgh Architectural Association, held in the Association's Rooms, 117, George-street, on the 25th ult., Mr. A. Hunter Crawford, the President, in the chair, Mr. Daniel Macfie read a paper on "Artificial Lighting in the Nineteenth Century," which was illustrated by limelight views. Alluding to the street lighting of Edinburgh, Mr. Macfie said it was little short of a scandal that in twentieth-century Edinburgh a unique installation of an antiquated and effete style of gas-lamps existed side by side with the electric arc lamp. It was true that in some six thoroughfares throughout the city there were specimen installations of incandescent gas-lighting, but these and the thirty-eight miles of electrically-lit streets served only to bring into stronger relief the 150 miles of streets within the city boundaries which were still lit with an effete style of gas-lamp. The juxtaposition of electric arc lamps and an effete type of gas-lamp consuming only 2 cubic feet of gas per hour, doing eight-candle duty, was not matched in the United Kingdom, and it was not creditable to the powers that be that, while they had widely and generously adopted the electric arc lamp for street lighting, no sustained effort had been made to improve a system of gas lighting already existing. There need be nothing but praise for what had been done in electric lighting, but as it appeared to be generally conceded that on account of the cost a halt must be called in that direction, it might not be unprofitable to inquire what steps might be taken, and at what cost, to improve the 150 miles of gas-lit streets in Edinburgh to-day. As a first step towards that end, the present globe lamp with its blow-hole should be abolished, and with all convenient speed. To replace these, square-tapered lanterns might be substituted at a slightly increased cost, and these could be of a type that would suit equally well with an enlarged flat flame burner or a Welsbach incandescent burner. The only method worthy of serious consideration for use for important streets was the adoption of the incandescent burner — preferably in a square, tapered lantern, as suggested. Already incandescent gas lamps were installed in several quarters of the city, lighting about one and a-half miles of streets, but "the man in the street" might be excused if he came to the conclusion that no serious or well organised attempt was made to keep these lamps and their burners in the best condition. Edinburgh was at present only spending about 2,630*l.* more for the gas lighting of 151½ miles than it was spending on the electric lighting of thirty-eight and a-half miles. No one would suggest that what had been done in electric lighting was not well done; but it was most reasonable to suggest that the time had come to improve some portion of the remaining three-fourths of their streets, which had been denied the luxury of electric lighting. A modest beginning might be made with, say, fifty miles of the more important thoroughfares with 3 ft. incandescent gas-lights at a cost of say 34*s.* 7*d.* per lamp, an extra of 15*s.* each, or an additional charge of 46*l.* 15*s.* per mile per annum, with lighting power five times increased. To this would have to be added the cost of mantle and renewals and the initial cost of new lanterns, but those globe lamps displaced could be used for the outlying districts until such time as the globe lamps were finally superseded. The 100 miles of streets still remaining might at once have burner tips consuming 3 cubic ft. per hour substituted at a merely nominal cost, while the increased charge for gas would only amount to 10*s.* per lamp per annum, giving a light 75 per cent. better. Such globe lamps as remained in use might have a metal lifting flap for the covering of the present blow-hole.—On the motion of Mr. Thomas Ross, Mr. Macfie was awarded a vote of thanks.—The Associate Section held a meeting on Wednesday, March 4, in the rooms, 117, George-street, Mr. J. D. Trail in the chair. Mr. James Gillespie read a comprehensive paper on English spires and towers, which took the form of a review and criticism. In the course of his paper he dwelt first upon the importance of towers and spires in architectural design; pointing out how their use on a building at once adds to it that stateliness and dignity which elevation always conveys. He contended that for good outline and beauty of detail none could be found to excel the Gothic spires of England. The position and uses of the central and western towers was explained. The history of spire growth was next dwelt upon, beginning with the simple pyramidical capping of the Norman period, then the "broach" form of spires, with all their variations and developments so commonly employed in the Early English period, and, finally, the Decorated and Perpendicular towers and spires. Numerous examples of each class were shown and discussed. The paper concluded with some Renaissance and some Scotch towers and spires, with special reference to Edinburgh towers and spires. The lecture was illustrated by a splendid series of limelight views and measured drawings.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

A SPECIAL general meeting of the Royal Institute of British Architects was held on Monday at No. 9, Conduit-street, W., Mr. Aston Webb, A.R.A., F.S.A., President, in the chair.

The Chairman announced that the meeting was convened pursuant to by-law for the purpose of electing the Royal Gold Medallist for the current year, and moved in accordance with notice that Mr. Charles F. McKim, of the firm of Messrs. McKim, Mead, & White, of New York, U.S.A., be elected for the honour. Whereupon it was resolved, *nem. con.*, that, subject to his Majesty's gracious sanction the Royal Gold Medal for the promotion of architecture be awarded this year to Mr. Charles F. McKim, of New York, for his work as an architect.

This concluded the business of the special meeting.

The ninth general meeting of the session was then held. The President, referring to a circular recently issued to architects and others, headed "A Government Diploma for Architects," announced that the Council were still opposed to any such scheme of registration as that set forth in a previous Bill dealing with the same subject, but when the details of the proposed Bill were before them and had been duly considered, the Council would be prepared to give their definite views as to the course to be taken.

The following candidates for membership were elected:—*As Fellows*, Sir R. Rowand Anderson, LL.D., F.R.S.E., Edinburgh; and Messrs. W. Ainslie; T. E. Cooper; H. Davis, Scarborough; J. Macintyre Henry, Edinburgh; W. Stirrup, Blackburn; W. Angelo Waddington, Manchester; J. H. T. Wood, M.A., Cantab; A. W. Yeomans, Chard, Somerset.

As Associates, Messrs. R. Bennett, Buxton; W. E. Brooks; F. B. Chester; W. St. Leger Crowley, Cardiff; W. Greenwood, Blackburn, Lancs.; J. H. Higson, Blackburn;

J. Holt, Wilmslow, Cheshire; C. H. Hopson, Canada; H. J. B. Hoskins, Birmingham; J. I. Price Jones, Cardiff; J. M. Lethbridge; T. F. Maclennan, Edinburgh; T. McLaren, Montreal; C. E. Monro, Glasgow; G. S. Nicol, Birmingham; C. E. L. Parkinson; F. G. Richardson; N. T. Salmon, Reading; S. Towse; W. H. Watkins, Bristol; H. White; F. Carr Wrigley.

As Hon. Corresponding Member, Constant Moyaux, Member of the Institute of France, President of the Société Centrale des Architectes Français, Paris.

The meeting then proceeded to a discussion of the measure for amending the London Building Acts, and upon the invitation of the President Mr. J. Douglass Mathews, Chairman of the Practice Standing Committee, briefly reviewed the provisions of the Bill and dealt with the alterations suggested by his Committee. The impracticable nature of the measure in various respects having also been pointed out by other speakers, the Chairman announced that the Council would take the necessary steps to oppose the Bill should it come before Parliament.

A vote of thanks to the Practice Committee for their labours in connexion with the Bill was passed by acclamation.

The proceedings then closed, and the meeting separated.

Illustrations.

DESIGN FOR A TOWN CHURCH.

THIS is the design submitted for the Soane medallion this year, under the title "New Era," by Mr. F. J. Horth, of Hull; a design which, as we observed in our general review of the students' drawings a few weeks ago, we thought might well have deserved a "Medal of Merit" or an "Honourable Mention" in the competition.

The following is the author's description of his intentions in the design:—

"For the town church design it was my endeavour to give the greatest possible congregational area, free from all obstructions in the form of columns, &c., and the dome form of plan with shallow apse struck me as being the best way out of the difficulty. The arrangement of choir and bringing forward of altar was suggested in Mr. Emerson's paper, which we were advised to follow. The interior is finished in marble and mosaics; the exterior faced with stone and narrow bricks, with ½-in. white joints, and the twin towers and concrete dome I thought would form a pleasing effect in light and shade, and perhaps add somewhat to the skyline of the town."

BUSINESS PREMISES, JERMYN-STREET

THE illustration shows Messrs. Sanden & Co.'s new premises, erected at the corner of Jermyn-street and Wells-street. The building is faced with Portland whitbed brown stone, backed with stock bricks.

The contractor was Mr. John Greenwood, of London; Messrs. J. & A. Crew were the masons, and Messrs. Measures Bros. did the constructional steel work. The ground floor is fitted up with wainscot oak fittings and offices. The joinery on the upper floors is of pitch pine.

Mr. Reginald Morphew is the architect.

"TENANTREES."

IN the absence of a plan, which in this instance the architect is precluded from furnishing, the arrangement of this house can hardly be read from the view which we give; it may be, however, sufficient to say that the nucleus is a large sitting-room hall from which the staircase is separated by an open screen, and which has the bay shown in the view and an oratory on opposite sides of it. The offices run towards the back, and at right angles to them, forming a "Z" on plan, is the stabling. A forecourt, with paved pathway, is on the entrance front. The porch is of three stories, the upper constructed of timber and, like the greater part of the work above the ground story, is covered with rough-cast.

The house was erected by Mr. Kite, builder, Salisbury, from the designs of Mr. C. E. Ponting, architect.

JAPANESE ORNAMENT: PLATE IV.

THESE illustrations are given in connexion with the third serial article on Japanese ornament, which will be found on another page; they are there referred to and described.

ENGINEERING SOCIETIES.

THE INSTITUTION OF CIVIL ENGINEERS.—At the ordinary meeting of this Institution on the 24th ult. Mr. J. C. Hawkshaw, M.A., President, in the chair, the paper read was "Mechanical Handling of Material," by Mr. G. F. Zimmer, Assoc.M.Inst.C.E. Mechanical appliances for the conveyance of material from one point to another were undoubtedly of the first importance owing to the economy which they effected; and, in round figures, the saving of one man's wages warranted an outlay of 1,000*l.* in machinery. The paper treated only of such methods as dealt with material continuously, that was, which received and delivered it in an uninterrupted stream; and passed over such methods as light railways, ropeways, &c. The appliances were described under three heads, viz.: (*a*) Appliances for lifting in a vertical direction, or from one level to another, called elevators; (*b*) appliances for moving material in a horizontal direction, called conveyors; (*c*) appliances which combined the two former operations. Elevators in a primitive form had been known and used for a considerable time, and since their introduction had undergone little alteration except in details. They consisted of endless belts or chains, to which suitable shaped buckets were attached, and which ran over two terminal pulleys, fixed at different levels. Grain-elevators were usually vertical, and were encased in wooden and iron trunks; while mineral elevators were generally in a slanting position at an angle of 45 deg. to 60 deg. Grain elevators were fitted with leather or textile bands, while mineral elevators had malleable- or wrought-iron chains as support for the buckets. Grain elevators, travelling at a speed of 250 ft. to 350 ft. per minute, according to the size of their terminal pulleys, could deliver satisfactorily if in a vertical position, while mineral elevators, which travelled at the rate of only 50 ft. to 160 ft. per minute, required the inclined position, so as to discharge their load clear of their own buckets. Inclined elevators were more easily driven than vertical elevators, on the principle of the inclined plane. In vertical elevators, in order to effect perfect discharge, the centrifugal force must be sufficient to overcome the gravity of the material; so for a specifically heavy material it was necessary to have a higher centrifugal force—that was, greater speed of elevator—than for a specifically lighter material. While it was usual to run coal-elevators at 90 ft. to 130 ft. per minute, according to the friability of the coal, coke-elevators ran at only 50 ft. to 90 ft. per minute. On the other hand, minerals which did not deteriorate through breakage could be elevated at the rate of 120 ft. to 160 ft. per minute. A very rational form of elevator was that fitted with a continuous chain of buckets. It was of much larger capacity than an ordinary elevator of the same dimensions. It received and delivered the feed more uniformly, and as the buckets need not plough intermittently through the contents of the elevator-well, slightly less driving-power was required. The types of conveyor were numerous, and some of them were of great antiquity. The oldest type was undoubtedly the Archimedean screw, worm, or spiral conveyor. It consisted of a continuous or broken blade screw described round a spindle, revolving in a suitable trough, and thus propelling the material slowly from one end of the trough to the other. The ratio of the diameter to the pitch of all worms, depended upon the kind of material to be conveyed. It ranged from a pitch of one-third of the diameter to a pitch equal to the whole diameter of the worm, and even more. The greater the pitch, the greater the driving-power required. A detail of great importance in all worm conveyors was the intermediate bearing. This, if cumbersome, obstructed the passage of the material, a result which was to be carefully avoided. Delivery of the material from a worm-conveyor could be effected at a number of points: it was only necessary to provide a suitable outlet. The principal advantages of the worm-conveyor were its simplicity and small first cost; it was, moreover, of great service where a mixing of the material to be conveyed was desired. The chief disadvantage was the large amount of driving-power required, and the breakage of the material conveyed. Conveyors of the Drag or Push-plate type consisted of a fixed open trough. The material to be conveyed was deposited in this trough, and was pushed or dragged along by a series of plates attached to an endless chain. The speed of travel ranged from 60 ft. to 180 ft. per minute. The cable conveyor consisted of a V or U shaped trough through which was dragged a wire rope with disk-like attachments. The speed of travel was 100 ft. to 120 ft. per minute. Band conveyors had been introduced a little more than twenty years ago, and were now one of the best means of conveying large quantities of almost all kinds of material, especially for long distances. They consisted of a band which ran over two terminal pulleys. Early band conveyors had been almost entirely used for conveying grain. The tightening of a band conveyor was done in a similar manner to the tightening of elevators. In long conveyors the tightening-gear consisted of a pulley held in tension by weights over which the belt passed. The tight side of the band was the one which should preferably be used for conveying the material. To withdraw the feed of a band-conveyor at an intermediate point, a throw-off carriage was employed. The speed at which band-conveyors for grain were run, varied from 450 ft. to 600 ft. per minute. The lower speed was for oats or other grain which contained a quantity of chaff that would be blown off the band at a speed exceeding 500 ft. Maize, beans, and heavier seeds were conveyed at the highest speed of 600 ft. per minute. Band conveyors for heavy materials, such as coal, coke, minerals, &c., were very similar to those previously described, with the exception that all the fittings were much more substantial. The principal advantages of band-conveyors were the small amount of power required to drive them, and the fact that they did not injure the material conveyed. The disadvantages were that a great many small bearings had to be oiled and kept in repair. The continuous trough or travelling trough-conveyor consisted of an endless trough, the sections of which were riveted to the links of suitable chains. The endless trough travelled over two terminal pulleys. These conveyors travelled at 75 ft. to 100 ft. per minute. They were in their construction very similar to the push-plate conveyor, but each section of trough took the place of a push plate on the endless chain. The vibrating trough conveyor was the latest type, and consisted of troughs which received the material at one end and delivered it to the other by means of a succession of suitable backward and forward movements of the troughs. These might, therefore, be classed together with the two previous types, the band and the travelling-trough conveyors, as in all three the material was, so to speak, conveyed in a trough without the action of a stirring or pushing element, as was the case with worms, push-plates, and cable conveyors. It was obvious that all kinds of materials which deteriorated through rough treatment should be conveyed on appliances of the last three types. The support of the trough in its reciprocating motion had been effected by flexible legs in an oblique position. For considerable lengths and capacities the conveyors were balanced. The load could be fed into or withdrawn from any of these conveyors at any number of points, without cessation of work. The material travelled at the rate of 40 ft. to 70 ft. per minute. Under the heading (c) there were only two types to be mentioned—the travelling or tilting bucket conveyor and the pneumatic conveyor. The former consisted of two endless chains or ropes held at certain distances apart by suitable bars which were fitted with small rollers at each end. Every link, and sometimes every second link, carried a bucket, so that the whole was an endless chain of buckets, which were not, however, fixed like an elevator bucket, but were movable, and suspended above their centre of gravity, so that they were always in an upright position, whether they were moving horizontally or vertically. Each bucket carried its load to the point at which delivery was required, and here it was met by an adjustable device which tilted each bucket in its turn and thus emptied the contents. The material to be conveyed was not injured in the least. Such conveyors required little driving power, and one main drive was sufficient for a whole installation. The second and last appliance under this head was the pneumatic elevator. Mr. F. E. Duckham, M.Inst.C.E., had designed the apparatus which had been in use at the Millwall Docks and in docks of other ports since 1895. The plant consisted of an air-tight tank from which a pipe was connected to the bulk of material to be conveyed. The air was withdrawn from this tank by means of

a second pipe connected to an exhauster, and as the air passed through the first-named pipe it drew the grain with it into the tank. The arrangement for removing the grain from the tank without destroying the vacuum was described and illustrated. The Bolinder timber conveyor was also described. Provision was made in many modern power-stations, gasworks and mines for automatic handling of the materials; and there was no reason why labour-saving appliances should not be employed in dock works, &c., for the handling of the excavated material. The paper was illustrated by diagrams and accompanied by numerous tables of data as to the capacity of elevators and conveyors of different sizes and speeds and the amount of power required for working them.

APPLICATIONS UNDER THE LONDON BUILDING ACT, 1894.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Act, 1894. The names of applicants are given between parentheses:—

Lines of Frontage and Projections.

Chelsea.—Buildings on a site on the east side of Beaufort-street, Chelsea (Messrs. N. S. Joseph, Son, & Smithem, for the Chelsea Borough Council).—Consent.

Dulwich.—Wood and tile porches in front of twenty-six houses on the north side and twenty-six houses on the south side of Turney-road, Dulwich (Mr. A. Bendall).—Consent.

Fulham.—Two houses with shops on the west side of Munster-road, Fulham, to abut upon Horder-road (Mr. J. Hodnett for Mr. B. M. Goldhill).—Consent.

Lewisham.—Retention of two coal-cellars erected in front of two houses on the north side of Duncombe Hill, Lewisham, westward of Duncombe House (Mr. S. Frampton).—Consent.

Poplar.—An illuminated sign in front of the Palace Theatre, Bow-road, Poplar (Mr. B. Crewe for Mr. F. Macnaghten).—Consent.

Holborn.—The retention of wooden letter signs in front of No. 14, Gray's-inn-road, Holborn (Mr. R. T. Browne for Messrs. Boissel & Co.).—Refused.

Clapham.—The retention of wooden porches and balcony fronts at Nos. 134 to 139 (inclusive), Rodenhurst-road, Clapham (Mr. W. N. Dunn for Mr. R. Maeers).—Refused.

Newington, West.—A one-story store at No. 69A, Penrose-street, Walworth (Mr. G. A. Lansdown for Messrs. J. T. Biglin & Sons).—Refused.

Norwood.—An addition at the rear of No. 20, The Broadway, Norwood-road, Norwood, to abut upon Chatsworth-road and Dalton-road (Mr. A. Stevens for Mr. J. Swann).—Refused.

Width of Way.

Greenwich.—A two-story building on the south-side of Benbow-street, Hughes-fields, Deptford (Mr. J. Webster for Messrs May & Roberts).—Refused.

Newington, West.—Two two-story buildings at the rear of Nos. 187 and 188, Great Dover-street, Southwark, with external walls at less than the prescribed distance from the centre of the roadway of Warren-place (Mr. G. A. Lansdown for Messrs. Johnson & Co.).—Refused.

Limehouse.—A forecourt boundary (an iron railing on a brick base), in front of Haileybury House, Durham-row, Stepney (Mr. O. F. Stenning for the trustees of the Haileybury Guild).—Consent.

Width of Way and Line of Frontage.

Strand.—Two iron and glass shelters at the entrances to Sir Charles Wyndham's theatre, St. Martin's-lane and St. Martin's-court, Westminster (Messrs. Starkie Gardner & Co. for Sir Charles Wyndham).—Consent.

St. Pancras, West.—Two one-story shops on the south-east side of St. Mary's-terrace, Arlington-road, Camden Town (Messrs. S. Jones & Co. for Mr. B. P. Lucas).—Refused.

Space at Rear.

Hampstead.—A modification of the provisions of Section 41 with regard to open spaces about buildings, so far as relates to the proposed erection of No. 7, Glenloch-street, Hampstead, with an irregular open space at the rear (Mr. C. J. Bentley for Mr. J. C. Hill).—Consent.

Width of Way and Space at Rear.

Kennington.—A three-story stable building, with loft over, on a site on the west side of Vauxhall-walk, Lambeth (Messrs. J. A. J. Woodward & Sons for Mr. W. Clarkson).—Consent.

Deviation from Certified Plans.

Southwark, West.†—Deviations from the plans certified by the District Surveyor, so far as relate to the proposed re-erection of the Waterman's Arms public-house on the south side of Bankside, Southwark, to abut also upon Pike-gardens (Mr. F. Bailey for the City of London Electric Lighting Co., Ltd.).—Consent.

Formation of Streets.

Dulwich.—That an order be issued to Mr. W. Oxtoby, sanctioning the formation or laying-out of a new street for carriage traffic to connect Azenby-square with Lyndhurst-grove, Camberwell (for Camberwell Borough Council).—Consent.

Hammersmith.—That an order be issued to Messrs. Richardson & White refusing to sanction the formation or laying-out of a new street for carriage traffic in continuation of Heath-place, Uxbridge-road, Hammersmith, and the widening of the existing portion of Heath-place to 40 ft. (for Messrs. Griggs Bros.).—Refused.

Means of Escape at Top of High Buildings.

City.—Means of escape in case of fire, proposed to be provided on the fourth story of the Wesleyan Centenary Hall, Bishopsgate-street, City (Messrs. Gordon & Gunton for the Trustees of the Wesleyan Missionary Society).—Consent.

St. George, Hanover-square.—Means of escape in case of fire, proposed to be provided on the fourth, fifth, sixth, and seventh stories of a proposed addition to the Grosvenor Hotel, Victoria Station, Westminster (Mr. C. L. Morgan for the London, Brighton, and South Coast Railway).—Consent.

Strand.—Means of escape in case of fire, proposed to be provided on the sixth story of Nos. 27 and 28, Pall Mall, St. James (Mr. F. E. Williams for the Wilkinson Sword Co.).—Consent.

Artisans' Dwellings.

Chelsea.—Five blocks of dwelling-houses to be inhabited by persons of the working class, and proposed to be erected, not abutting upon a street, on a site on the east side of Beaufort-street, Chelsea (Messrs. N. S. Joseph, Son, & Smithem for Chelsea Borough Council).—Consent.

Buildings for the Supply of Electricity.

Paddington, South.—The conversion of two stable buildings and a convertor house, Nos. 1, 2, and 3, Norfolk Crescent-mews, Titchborne-row, Paddington, into a transforming sub-station (Mr. E. C. Owen for the Metropolitan Electric Supply Co., Ltd.).—Consent.

Dwelling Houses on Low-lying Land.

Lambeth, North.—A dwelling-house on low-lying land situated at No. 11, New-cut, Lambeth (Messrs. Flood & King for Mr. J. Clarke).—Consent.

Lambeth, North.—Three dwelling-houses on low-lying land situated at Nos. 12, 13, and 14, New-cut, Lambeth (Messrs. Flood & King for Mr. H. Ruscoe).—Consent.

Greenwich.—Five shops and houses on low-lying land situated at Woolwich-road, Greenwich, next No. 345, with a cottage at the rear thereof facing Morley-road (Mr. A. E. Parnell for Mr. J. Sanford).—Consent.

*** *The recommendation marked † is contrary to the views of the Local Authority.*

THE LONDON BUILDING ACT.

AT the usual fortnightly Court of Common Council, on Thursday last week, the Streets Committee submitted a Report relative to the London Building Acts (Amendment) Bill in Parliament, and the resolutions of the various City Wardmotes, &c., thereupon, and recommended that, "having regard to the general opposition to the said Bill, a representation be made to the London County Council, asking them to withdraw the measure, and to arrange a conference with the Corporation and the Metropolitan Borough Councils to consider the whole subject with a view, if possible, to a Bill being framed that would effect the object in view without needlessly oppressing property owners."—Mr. A. C. Morton, who moved the adoption of the Report, thought that much might be done to minimise the danger of fire in warehouses, but the present Bill was much too harsh. The Report was adopted.—In view of the threatened opposition to the Bill, the Parliamentary Committee of the London County Council recommended at the meeting of the Council on Tuesday that it be withdrawn. After discussion, the recommendation was carried. See our County Council report this week for some notes of the discussion.—Following on the decision arrived at by the Council, the order for the second reading of the London Building Acts (Amendment) Bill was read in the House of Commons on Wednesday and discharged, and the Bill withdrawn. Sir F. Dixon-Hartland had on the paper a notice to move the rejection of the measure.

YEAR BOOK OF AUCTION SALES.—"The Land and House Property Year Book for 1902" is the eleventh year of issue of a work published at No. 6, St. Bride-street, E.C. It is issued as a guide to investments in real estate, and the contents mainly consist of results of sales at the London Auction Mart, and in the Metropolis, together with many of the chief provincial sales during 1902. The "Year Book," which is published at 6s. net, is a very useful, clear, and well-arranged work.

Correspondence.

CHIPPING WYCOMBE TOWN HALL COMPETITION.

SIR,—I am desired by the President of the Royal Institute of British Architects to ask you to kindly give publicity to the fact that the Corporation of Chipping Wycombe having altered their conditions to meet his views by adding to Clause 3, after the words "themselves prefer," the words—

"but it is the intention and wish of the Corporation to accept the assessor's award unless there should appear any valid reason to the contrary,"

and having extended the time for the delivery of designs to April 4, he has consented now to nominate an assessor.

W. J. LOCKE,
Secretary.

9, Conduit-street, Hanover square,
London, W., March 3, 1903.

THE STAINED GLASS OF THE FUTURE.

SIR,—Surely no one will be deceived by the distortion and exaggeration of your correspondent, Mr. F. C. Eden. It is a cheap, and therefore very common, form of criticism to take a sentence from its context and triumphantly expatiate on its absurdity, especially when one does not want to take the point of view of the person criticised.

If any one cares to take the trouble to refer to my paper, he will find that several essentials are enumerated before the leading comes up for consideration. In one place I say "the artist is first to conceive the light and tone that will be in harmony with his subject." He then goes on to the conception of the colour scheme and the keynote of colour; then the designing or arrangement of figures to fill the space at his disposal. It is then that the lead is considered to emphasise the important lines of the design.

I thought that any intelligent person would gather that this treatment of the lead referred to the *linear* design, or the drawing of the window. This idea of treating the lead as an important factor in the design was quite unknown to the old men, and I am much obliged to Mr. Eden for being at pains to confirm this statement.

I have always understood that the old men used small leads because it was so costly in those days, but, be that as it may, the fact remains, according to Mr. Eden, that in all their windows they used only ¼ in. lead; which proves that they did not regard it as a decorative factor at all, but simply for its use in holding the glass together. (Of course, I am speaking of their figure work.)

In referring to my use of a ½ in. lead in a comparatively small window, he omits to mention that I say that would be the *principal* lead, and that, consequently, a ⅜-in. and a ¼-in. lead would probably also be used in the same window. I am just as much opposed as he to the use of a bold lead, a ½-in. or even a 1-in., if one lead only is used throughout. This is a forcible-feeble method which does not result in real strength. Architects will understand that if all the members of a decorative scheme are of the same strength there can be no repose, or sense of size and proportion, which are elements of strength; everything comes at you at once. The essence of my method in the leading, as in the departments of colour and tone, is to emphasise the important points, and keep the subordinate parts in due relation to the whole.

To sum up: a ¼-inch lead used throughout is weak and meaningless; one bold lead used throughout is not strong; strength and repose can only come from the use of varied leads.

Mr. Eden and his friends, the imitators, show us to what depths of degradation they can fall in their servile imitation of all the weaknesses and failings in old work. Imitation is universally condemned in every other art; but in this, with their mumbo-jumbo incantation of "There is no glass like the old glass, and there will never be any windows like the old windows," they have got an ignorant public to believe that imitation is the only wear, and to accept a sham in place of a reality. Thus the imitation of old windows has become a mechanical manufacture; we can speak of it as "the trade."

I had no intention in my paper of lecturing "the trade," nor am I Quixotic enough to imagine that I could reform it. That would be one of the labours of Hercules: I leave the gentle reader to guess which.

How foolish is the idea that because I do not wish to imitate old work I can have no appreciation for it. It is possible that I think a great deal more of the old men than their superficial imitators. I give them credit for honestly striving to make the best of the limited means at their disposal. It is inconceivable to me that if they were alive to-day they would use the poorest glass and ignore the best. I am confident that their problem would be the same as my own, viz., how to make the best use of the best material.

I am particularly hurt at Mr. Eden's misconception (probably unintentional) in confounding me

with any school or person whatsoever. Whatever may be said of my ideas and methods, in so far as they are not the acquisitions from, and rejections of, what has gone before, they are my own. Mr. Eden is quite at liberty to criticise the painting, colouring, and workmanship of what he calls "the new school," but he must not expect me to defend them. Indeed, he has heard or read my address to little purpose if he cannot distinguish the difference. It did not enter into my purpose to criticise what I should call the new school of sham mediævalists, as distinguished from the old-fashioned frankly commercial imitators. My object was to make architects acquainted with the best materials, to show them the latent possibilities in it, the essentials of work based upon that sure foundation, and then let them criticise for themselves.

The future of stained glass remains with the architect. It is for him to say whether he wishes it to remain a dead manufacture, or become a living art.

In conclusion, let me assure those architects who are still shivering on the brink that the best glass, that is to say, Prior's Early English and Powell's Antique, can be adapted to every style of building.

SILVESTER SPARROW.

HOW TO ESTIMATE.

SIR,—I am greatly indebted for your able review and candid criticism of my book, for it is only by having such imperfections pointed out that they can be remedied in subsequent editions. But the fact that it took ten years to compile the information, three years to write the volume (amid many lengthy interruptions), and half a year to print and publish, will at once explain many of its apparent irregularities. Think also of the delving in about a hundred books, bills of quantities, catalogues, circulars, &c., the statements in which were most conflicting, and the reader will agree with your sympathetic remark that the poor author "may well be appalled by the magnitude of the task he has set himself." And so I found it, and am painfully aware of many shortcomings.

With reference to the observation that I have appeared to place rather undue reliance upon constants of labour, I expressly stated on p. 18 that "the practical estimator seldom makes much use of constants. . . . Little use is therefore made by the author of constants in this book, as they are often ridiculously minute as regards the number of decimal places, though they serve as a guide, &c." As a good example of how a contractor may undervalue his labour and lose money on an item through sheer lack of supervision, I may instance the tiled paving of an ordinary porch which came under my notice a month ago. This porch had an area of 6 yards super., and was laid with 4-in. red encaustic tiles, the p.c. of the latter being stipulated in the quantities at 5s. per yard super. Unknown to them, I set a close watch upon the bricklayer and labourer who laid the tiles in cement, and found they took no less than thirty-eight hours to do this bit of work, the labour alone thus coming to 7s. per yard with local wages. The cement came to 5d. per yard super. The total cost, including profit, worked out to 16s. per yard, yet the builder's price in the quantities was only 10s. He therefore lost 6s. per yard, and obviously undercalculated his labour, as he afterwards admitted. On the other hand, contractors make up for losses on particular items by larger gains on others, an example of which I similarly discovered in the counting of the time occupied in digging, filling in, and renewing of some 7,000 post holes, which actually came to 4d. each, including profit, although 6d. was the rate put down by the contractor.

That builders make up their prices by guesswork to a large extent is only too obvious from many lists of tenders, a case of which occurred a fortnight since in the Grove Vale housing scheme. The tenders ranged from 71,680*l.* to 41,000*l.*, and the latter was accepted. Surely the prices in some of these must have been very different, showing how difficult the subject is to even the most experienced men. For instance, in the War Department Schedule of Prices for the London District, lime mortar is given at 16s. per yard cube, while in the London School Board Schedule it is only 12s.

As regards my association with Ireland, I am but temporarily stationed here, and my book does not refer to this country in particular, but its methods are applicable to any locality. It is hardly necessary, therefore, to set up a London standard of prices in a treatise mainly dealing with principles and analyses, especially as the number of builders in the metropolis is merely a fraction of those in other parts of the kingdom, who have to be considered likewise. And costs of material and labour are perpetually changing from many reasons.

The next edition will shortly be published, and in it I hope to avoid the various inconsistencies and discrepancies inevitable in the first issue of a pioneer work, as well as to amend and enlarge the whole book.

JOHN T. REA.

MAP OF LONDON IMPROVEMENTS.—We have received from Mr. E. Stanford one of those useful maps which he produces year by year, giving the lines of the most recent railway and tramway schemes proposed. The price, is 0s. in sheet, or 10s. mounted and in a case.

The Student's Column.

BUILDERS' TOOLS AND THEIR USES.

CHAPTER 5.

Marble Mason.

CARRARA MARBLE. — This famous marble is quarried with dynamite. As regards finishing, it is first rubbed smooth with fine sand, then with pumice-stone, and then with two or three stones of variable hardness, finishing off with lead, which gives the last and brightest polish, water and friction doing the work.

Derbyshire Marble.—In regard to this part of the subject, it may be convenient to summarise here information which has already been given, in more detail, in a former article in our columns, some years back.

In quarrying Derbyshire marbles, only the rough stone is blasted, good blocks being levered from the face of the workings by plugs and feathers. Drilling is done by hand only, and the rate of penetration, two men striking, is about 5 ft. per hour for a hole 1½ in. diameter. The material does not split very easily, though the grain is tolerably uniform.

The machinery at the mason's depôt attached to these quarries may be summarised as follows, together with a brief allusion to the various processes of dressing. Marble, then, is sawn into slabs by saws set in large frames, the grinding substance being grit-sand from Matlock and the river Trent, and is rubbed by iron rubbing tables revolving on spindles, one of which is 13 ft. in diameter and another 6 ft. The stone is rubbed preparatory to being polished by being weighted and placed on the revolving table, turning at the rate of thirty-two revolutions per minute, from the centre of which to the circumference beams of wood are fixed at intervals, and against these the block rests whilst the table moves round underneath. There is also a polishing bed, as well as stone lathes, one of which takes columns up to 16 ft. in length, and as much as 3½ tons in weight, the whole being driven by a powerful steam engine.

Moulded work is here done by hand, and when several stones are employed for one moulding, or for pilasters, they are fixed in plaster of Paris side by side and all polished together, so that the surfaces shall run evenly. Marble is also moulded by placing it on a machine, when iron moulds are rubbed over it backwards and forwards, the grinding action being assisted either with sand and water, or with fine shot and water. After being sanded the Hopton marbles are treated with No. 1 emery flour, and the polish is finally brought out by the application of putty powder.

Alabaster.—Although considerably harder than Bath or Caen stone, alabaster is worked like those stones, with toothed saws and steel drags of varying degrees of fineness, first the coarse and then the fine being used. The surface left by the drag is rubbed with coarse sandpaper to remove the marks of the drag, and then with fine sandpaper, all these operations being done in the dry. The surface is next grounded with stone grits and water, as in marble polishing, but the grits in this case are used flat instead of on edge. The grits mostly employed are seconds and snake (water of Ayr) stone, which are sometimes pounded up and used on a worsted pad or boss, the seconds grit first, and then the snake. Then mix in equal proportions powdered sulphur and French chalk, and use on the boss moderately moistened with water, working uniformly over every part, and finally finishing with putty powder (oxide of tin). A little sweet oil rubbed on afterwards brings out the veins, and renders the polish brilliant and lasting.

Polishing Marble.—Marble is polished in a variety of ways, the choice depending greatly upon the nature and quality of the material, the specimens of which are very numerous. For ordinary marbles the following methods may be adopted. There are four operations :—

First.—Smoothing the roughness left on the surface by the tool marks by rubbing the marble with fine sharp sand and water until an even surface is produced.

Second.—It is then "grounded," that is, rubbed with gritstones of varying degrees of fineness used with water ; coarse or first grit is followed by the finer second grit, and the finishing is done with snake stone (water of Ayr stone), or pumice stone with water. Care must be taken that in each process of gritting the marks or scratches of its predecessor are removed, so that when the surface is snaked no scratches whatever are visible, for upon the careful gritting depends the success of the ultimate polish.

Third.—For the fourth process, called "softening the ground," lead filings are mixed with the emery mud produced by the polishing of mirrors, and the marble is rubbed with a compact linen cushion well saturated with this mixture. Rouge is also used for this operation.

Fourth.—For polishing itself the gloss is applied. This is effected by well washing the prepared surface, and leaving it until perfectly dry. Then rub with a pad of felt or flannel, sprinkled with putty powder (calcined tin), moistened with water, until the gloss or natural polish is obtained. The chief factor in this method is persistent and attentive rubbing, and a good polish thus obtained will retain its lustre for at least thirty years.

For speed and cheapness chemicals are sometimes employed for polishing, such as oxalic acid, hydrochloric acid (spirit of salts), and a little alum mixed with the water, &c., but their use is to be deprecated, as the polish soon vanishes and the face of the marble is in some measure destroyed. The polishing of marble adds greatly to its beauty, as the delicate figuring and gradations of colouring are clearly brought out.

BOOKS RECEIVED.

CHEMICAL TECHNOLOGY. Edited by J. W. Dibdin, F.I.C., F.C.S. Vol. IV. ; Electric Lighting and Photometry. (J. & A. Churchill. 20s.)

THE LAW AFFECTING BUILDING OPERATIONS AND ARCHITECTS' AND BUILDERS' CONTRACTS. By Isaac Connell, S.S.C. Edinburgh. (William Green & Sons, Edinburgh.)

THE MUNICIPAL YEARBOOK OF THE UNITED KINGDOM FOR 1903. Edited by Robert Donald. (Edward Lloyd.)

TIME AND TIMETELLERS. By James W. Benson. A Reprint. (J. W. Benson, Ltd. 1s.)

GENERAL BUILDING NEWS.

UNITARIAN CHURCH, HIGHGATE.—The memorial stones for the new buildings to be attached to Highgate Hill Unitarian Church were laid recently. The new buildings are to take the form of a lecture-hall and classrooms, facing Highgate Hill and occupying the vacant space between the church and schoolroom. The new hall will be 20 ft. wide by 36 ft. long, and will hold rather less than 100 people. Behind it there will be a classroom 16 ft. by 10 ft., and over the existing vestry is to be erected a new vestry. These and other minor works have been contracted for by the General Builders Co., Ltd., of Notting Hill. The architect, Mr. Arnold S. Tayler, has designed the new work to group with the existing buildings. The estimated cost is 1,400*l.*

LIBRARY, TROEDYRHIW, GLAMORGANSHIRE. — A new branch reading-room and library has been established by the Merthyr Urban District Council at Troedyrhiw. The building is constructed of stone, cemented over, with red brick quoins. The reading-room is 29 ft. by 22 ft., and the room for books 12 ft. by 15 ft. There is a lobby and offices. The plans were prepared by Mr. T. F. Harvey, the Council's Surveyor. Mr. Evan Jones, Dowlais, had the contract for the building.

ADDITIONS, WIMBLEDON FREE LIBRARY.—Colonel Ll. W. Longstaff opened the new wing of the Wimbledon Free Library on the 25th ult., the extension having been built from the designs by Mr. J. R. Thomson at a cost of 3,400*l.*

HOTEL, HERTFORD.—A new hotel, the Green Dragon, is to be erected at Hertford, at the corner of Maidenhead-street and the Wash, for Messrs. McMullen & Sons, Ltd. The building is in the Elizabethan style, the facings being in red brick, with terra cotta dressings. An arrangement has been made with the Corporation by which the present line of frontage facing Maidenhead-street will be set back an average of 4 ft., and the building will have a circular sweep into the Wash. The entrance to the new hotel will be in Maidenhead-street, and on the corner site facing the Wash there will be erected shop premises. Mr. James Farley is the architect, and the builder will be Mr. George Wiggs, of Watford.

NEW CHURCH, WALTHAMSTOW.—The foundation-stone of the new Church of St. James's, Walthamstow, was laid on the 21st ult. by Lady Gwendolen Cecil. The church, which is intended to seat nearly a thousand people, will occupy the site of the old Church of St. James. The new church will be of red brick with white stone dressings in the Early English style, and the architects are Messrs. J. E. K. & J. P. Cutts. The cost is estimated at 10,000*l.*

TOWN CHURCH OF ST. ANDREWS. — It is proposed to restore this building, the architect being Mr. Macgregor Chalmers. The galleries will be re-

moved, and the side aisles will be reduced to their original height, which has recently been discovered. The pillars and arches will resume their old places and form, and on them the clearstory will be rebuilt. The so-called "Bishop's" or "Communion" aisle will be remodelled, and the corresponding one of smaller size built to the north. A new aisle will be built to the east of the Bishop's aisle. The porch shown in every plan and drawing up to and including that of 1767 will be rebuilt on its former foundations, if they can be found. The tracery of the windows and the mouldings and decorations of the doors will be in keeping with the suggestions given by these old sketches and by contemporary churches. The walls will be of stone throughout. The greater part of the seats will be of oak. It has been decided that the funds raised to commemorate the late Dr. A. K. H. Boyd should be devoted to the erection of the pulpit in the restored church. The estimate of the probable cost of restoration is 23,375*l.*

WORKMEN'S DWELLINGS, WESTMINSTER.—The workmen's dwellings, of which the Prince of Wales has agreed to lay the foundation-stone on April 27, are being erected by Messrs. Mowlem & Co. for the Council of the City of Westminster, on the Page-street, Regency-street, and Vincent-street site, after plans and designs made by Messrs. N. S. Joseph, Son, and Smithem. The site of about 64,000 super. ft. belonged to the Ecclesiastical Commissioners, and was purchased for 32,000*l.* The estimated outlay upon the new buildings amounts to 68,200*l.* The accommodation provided extends to 344 tenements containing 793 rooms, consisting of 45 single rooms to be let, it is anticipated, for 4s. per week, 161 two-room tenements for 7s., 126 suites of three rooms for 9s., and 12 suites of four rooms for 10s. 6d. per week. The estimated gross rental of 6,674*l.* per annum will, it is calculated, yield a net rent of 4,139*l.* yearly.

COLD STORES, MILLER-STREET, MANCHESTER.—This building, recently completed, is ten stories in height, with an additional small flat on the roof for the condenser used in connexion with the refrigerating machinery. The basement floor is 32 ft. below the level of the street, and in a portion of it are the boilers and machinery. The offices are on the ground floor facing Charter-street. With the exception of the entrance door and the office windows, there is no opening on the Miller-street and Charter-street fronts. This has given the architects an opportunity for a bold treatment of lofty arched recesses, a strong cornice for shadow, and broad bands of warm, buff terra-cotta alternating with deep red brick. The building occupies a plot surrounded by four streets. The Beswick-row and Ledger-street fronts are utilised on the ground floor for loading, there being platforms and large hoists sufficient to deal with five lurries at one time. The Union Cold Storage Co. have widened Ledger-street sufficiently to allow a glass roof covering over the lurries loading in that street. The work of building was carried out by Messrs. Neill & Sons under the superintendence of the architects, Messrs. Chas. Heathcote & Sons, Manchester. The most difficult part was the excavation to such a depth, and this was rendered worse by the bursting of one of the Corporation mains in the neighbourhood, causing the basement to be flooded. The ground floor columns and beams were in position in July, 1902, the eighth floor was fixed in October, and the whole building, except the machinery and insulation, finished in November. The building from footings to the roof tank is 150 ft. high.

UNIVERSITY COLLEGE, SHEFFIELD.—The Council of University College, Sheffield, have approved the plans of Messrs. Gibbs & Flockton for the buildings to be erected on the Western Bank site. The site in Western Bank is about three-quarters of a mile from the centre of the city, on the ancient and broad highway leading to the West End. It is on the ridge of the hill 420 ft. above sea level, and it adjoins Weston Park on two sides. The Western boundary between the site and the park is to be of light iron railings, so that the building will appear as if within the park. The building is to be in the Tudor style. The walls are to be of brick, with stone dressing. The general plan is of buildings surrounding a quadrangle 154 ft. by 110 ft., with an annex for the library. The buildings on three sides of the quadrangle are to be erected immediately. The fourth side is to be erected hereafter when required, and the library as and when funds are available, and of such a design as shall then be determined. The building on the south side of the quadrangle, and facing Western Bank, is for general and administrative purposes, and comprises the entrance hall, common rooms, refectory, offices, council-room, and the great hall, which is 100 ft. by 40 ft., is to have windows upon all sides, with dressed stone walls, oak dado, and oak open-timbered roof. The hall is also the principal feature of the Western Bank front. The building on the west side of the quadrangle, and with a front to the Park, is for the arts and science departments, comprising arts, physics, biology and chemistry. The building on the north side of the quadrangle and also with a front to the Park, is for the medical department, comprising anatomy, physiology, pathology, bacteriology, public health, and also medical library and lecture rooms. The internal finish of the building is dependent upon the amount of subscriptions, but it is intended that in addition to finishing the entrance, the great hall and the council-room in dressed stone and oak, the corridors and laboratories shall have salt-glazed brick dados, and the corridor have buff-coloured facing bricks above the dados. The estimated cost of the buildings, exclusive of the library, is 67,500*l.*, and the library, if erected as designed, will cost 7,500*l.*

COUNCIL OFFICES, FELLING.—The new public offices which have just been erected at Felling, were occupied by the members of the Urban District Council on the 2nd inst. The new offices occupy a central position in Sunderland-road, about 200 yards distant from the foot of High-street, Felling. The building is of stone, with polished dressings, and is carried out in the Italian Renaissance style. The main feature of the interior is a council chamber, 40 ft. long by 24 ft. wide. The council chamber is well lighted with three windows, one in each gable, and an oriel window in the side wall. This latter window is filled with leaded stained glass, in which is worked the arms of the District Council, as well as those of the County of Durham. The furnishing throughout, with the exception of the council chamber, is in oak, that of the council chamber being in mahogany. The seating in this apartment is arranged in crescent form, so that each member faces the chairman's platform. The cost of the building without land or furnishing, is about 7,000*l.* The general contractor for the whole work was Mr. John Wilkinson, Felling. The sub-contractors were Messrs. Penman & Watson, Gateshead, plumbing; Mr. Digby Nelson, Sunderland, slating; Mr. Robert Sisterson, Felling, painting and glazing; Mr. Robert Robson, Newcastle, electric fittings; Messrs. Atkinson, Newcastle, stained glass. Messrs. Emley & Sons supplied the whole of the stoves and mantels, and Messrs. Bainbridge & Co., Newcastle, have executed the furnishing. The architect was Mr. H. Miller, Felling.

ASYLUM BUILDINGS, YORK.—The Lord Mayor (Alderman E. Gray) presided at the meeting of the York City Council on the 2nd inst., when it was decided to accept the tender of Messrs. George Longden & Son, Ltd., of Neepsend, Sheffield, at the sum of 90,453*l.*, for the erection of the new asylum buildings. Sir Joseph Rymer stated that accommodation would be provided for 360 patients, and the cost per bed in the York Asylum would be 280*l.*, which was lower than that of many of the asylums recently built. It was also decided to vote Mr. Creer, the City Surveyor, 750*l.* for his services as architect.

SCHOOL, CROWNHILL, DEVONSHIRE.—New schools have been erected at Crownhill for the St. Budeaux School Board. These schools occupy a site on the main road from Crownhill to St. Budeaux, and are situated about midway between Crownhill and Honicknowle, the villages they are intended to serve. The schools are of the one-story type. Mr. T. R. Kitsell was the architect. The walls are of red brickwork from the Honicknowle kilns, built with a 3-in. cavity. Local limestone and granite are used for copings, window sills, &c. The school provides for the accommodation of 176 boys and girls, and seventy-six infants. Mr. John Davey, of Compton, was the contractor, while Mr. J. Partridge acted as clerk of works.

PROPOSED RESTORATION OF CULROSS ABBEY.—For the restoration of Culross Abbey, which was founded in 1217, a scheme has been prepared by Sir Rowand Anderson, and in order to give effect to it a proposal has been made to raise a sum of about 5,000*l.* What the heritors are prepared to do is to provide a new roof, windows, floor, and seats, to strip the walls of lath and plaster, so as to re-expose the ashlar and to execute some other repairs. The object aimed at, however, is to remove the east and south galleries of the church, to rebuild the side aisles and the north and south transepts, to restore the eastern Norman windows, and to open two three-light windows in the north wall.

BOARD SCHOOL, BLACKPOOL.—The Devonshire-road Board School, Blackpool, was opened on the 23rd ult. The school, which has accommodation for over 1,000 children, has been built by Messrs. Cardwell, the architect being Alderman Mather, J.P.

OFFICES, MERSEY DOCKS AND HARBOUR BOARD, LIVERPOOL.—The Mersey Docks and Harbour Board have resolved to erect the new head offices, and they have just accepted the tender of Messrs. William Brown & Son, builders, Salford. The site is at the south end of the old George's Dock site, and the chief elevation will have a private frontage, an ornamental garden 60 ft. in depth, the whole clear space between the main entrance to the offices and the river wall being about 360 ft. The two ends of the building will be bounded respectively by the James-street extension and the Brunswick-street extension. On the east, or Goree-piazzas, side a new street is to be formed. The frontage of the offices will be 258 ft. long and 208 ft. in depth. The height of the main building is to be 80 ft., the extreme height of the dome being 220 ft. The four smaller towers are each to be 144 ft. high. The material for the outer walls is to be Portland stone, and the roofing of green Westmorland slates. Accommodation will be found for a staff of about 500. The joint architects are Messrs. Briggs & Wolstenholme, F. B. Hobbs, and Arnold Thornely, of Liverpool.

FOREIGN.

JOHANNESBURG.—Designs for the new Church of St. Mary, Johannesburg, have been prepared by Mr. John Begg, a talented young London architect, who went out to South Africa some little time since. The church, which is to be a large one to seat 2,000, will represent in Mr. Begg's hands the best model of modern English revived Gothic.

INDIA.—The recent growth of the import and export traffic at Victoria Dock, Bombay, and the necessity for providing adequate storage for cargo awaiting shipment, and for that discharged from steamers, have caused the Bombay Port Trustees to elaborate a scheme for improving and extending the existing shed accommodation in the dock. The scheme, as sanctioned, includes the reconstruction of five of the large transit sheds.——The bridge over the Gogra river at Turtipur, which consists of eighteen spans of 200-ft. steel girders, has been completed, and is now open for traffic.——Expenditure to complete the water-supply works at Jamalpur has been sanctioned.——The Government of India has sanctioned the survey being made by the agency of the North-Western Railway administration for a line from McLeodganj to Ferozepore, a distance of about 90 miles.——The erection of a new bridge at Nowshera, at a cost of 44,761 rupees, has been sanctioned.——A large building is to be erected at Ghaziabad station on the East Indian Railway, for the accommodation of the European staff at that station. It is estimated to cost about 40,000 rupees.——It is proposed to erect a completely equipped surgical hospital in connexion with the Calcutta Medical College.——A branch line is being surveyed from Amraoti to Ellichpur, in Behar, on the Great Indian Peninsula Railway.——Proposals are on foot for the erection of a new cathedral for Bombay. The present building was erected as a parish church in 1718, and is not thought to be worthy of the diocese.

AUSTRALIA.—The Minister for Home Affairs has published a summary of information respecting the proposed Federal capital sites, but no conclusion has yet been arrived at.——A curious Customs duty case has arisen in Melbourne. It appears that a number of models submitted for judgment as competitive designs for the Queen Victoria memorial statue have arrived from abroad, and a difficulty is experienced as to the payment of duty, for the Committee does not feel inclined to pay for every model that arrives. The Committee has tried to get the Government to let the models in duty free.——The expenditure on the erection of the Central Railway Station in Sydney to date is about 250,000*l.*——It has been decided to construct a new dry-dock at Birkenhead, Port Adelaide.

CHINA.—We understand that the Governor of Hong Kong has invited competitive designs for the new post office to be erected there. The author of the accepted design will be engaged as consulting architect on a commission of 3¾ per cent. on the actual cost of the building, and the author of the second design will receive a premium of 1,500 dols.

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENT.—Mr. H. F. Joel has purchased the stock and business of the firm of H. F. Joel and Messrs. Potter & Sons, electric dynamo and motor manufacturers, of 31, Wilson-street, Finsbury-square, and will carry on the business in his own name.

ALEXANDER THOMSON TRAVELLING STUDENTSHIP, 1903.—This studentship, of the value of 60*l.*, given for designs in the Greek style, and which is competed for every third year and judged by trustees in connexion with the Glasgow Institute of Architects, has been awarded this year to Mr. Wm. Beattie-Brown, jun., of London. The subjects given for the competition were—(1) A design for a picture gallery, &c., to accommodate the fine art department of a university situated in Greece; and (2) a restoration of the Tower of the Winds, Athens.

LIMITS ON SKY-SCRAPERS.—The Washington correspondent of the *Standard* has communicated the following to that journal:—"The Supreme Court has decided, in a case brought up from Boston, that the building of sky-scrapers can be legally restrained. Westminster Chambers, fronting on Copley-square, had been built to a height of 125 ft., under the old law permitting erection up to two and a half times the width of the street. The decision sustains the Constitutional nature of the law limiting erection to 90 ft. All stories above that limit must be razed. The ground of the decision is the public right to light and air, making it necessary either that sky-scrapers should be limited in height, or that the builders should purchase rights for the upper stories, as in the case of the ground area. The owners of Westminster Chambers are considering the advisability of bringing a claim for damages for infringement of the rights of construction hitherto enjoyed generally. Lawyers and builders in several cities are greatly interested in the case."

THE PROPOSED FIRE EXHIBITION.—The Council of the Society of Arts has decided to offer gold, silver, and bronze medals for certain classes of modern fire-extinguishing and life-saving appliances to be exhibited at Earl's Court. For the best chemical fire-engine for town use shown at the

Exhibition the Council offer one Society of Arts gold, two silver, and two bronze medals, and also similar awards for the best and most easily-worked long ladder exhibited which will reach the sill of a window 80 ft. above the level of the pavement, and which can be rapidly transported over roads not more than 25 ft. wide.

THE PEABODY FUND.—By the thirty-eighth annual Report of this Fund, it appears that the total fund on December 31 last was 1,392,470*l.* 4s. 11d. The capital expenditure on land and buildings to the end of the year was 1,358,172*l.* 19s. 11d. The whole of the repairs, which include extensive drainage alterations at Westminster, Southwark-street, and Whitechapel, amount to 15,978*l.* 12s. 2d., and have been charged to income as formerly. This is the highest sum expended upon repairs in any one year since the establishment of the Fund. At the end of the year the Governors had provided for the artisan and labouring poor of London 11,918 rooms, besides bathrooms, laundries, and lavatories. These rooms comprised 5,387 separate dwellings, viz.:—101 of four rooms, 1,828 of three rooms, 2,572 of two rooms, and 886 of one room.

PRIZES FOR MUSEUM AND ARCHITECTURAL STUDIES.—The Technical Education Board of the London County Council is prepared to offer the following prizes for carefully executed drawings of buildings, churches, and of artistic objects in museums (South Kensington Museum and the British Museum especially). Two prizes of 15*l.* each, two prizes of 10*l.* each, and two prizes of 5*l.* each. The drawings may be in pencil, ink, or colour, as best fitted to the subjects represented. The subject selected may be in several classes of work or wholly in one, as for instance, goldsmiths' work, furniture, stained glass, pottery, ironwork, fine textiles, embroideries, &c. All the drawings should be of imperial size or mounted, two or more together, on sheets of that size. The aim should be to represent the objects as faithfully and carefully as possible, and no mere sketches will be accepted. Fidelity in the drawing will be more highly valued than a large number of sheets. As far as possible the drawings should be of full size, or an actual or approximate scale should be noted, together with any explanatory notes thought desirable. Students are recommended to select objects in the classes of work in which they are most interested, and from Gothic or Eastern examples as much as or more than from those of Renaissance style. The sets which receive prizes will become the absolute property of the Technical Education Board. Works submitted for competition must have been executed since the summer of 1902, and must not previously have been sent in for any competition. Candidates must be resident within the County of London and students in schools which are maintained or aided by the Board. They must apply on special forms which may be obtained from the Board's secretary. The last day for submitting drawings in competition for the above prizes is Monday, November 2, 1903. They should be delivered at the London County Council Central School of Arts and Crafts, 316, Regent-street, by that date. Each work must have a special label attached to it; labels may be obtained from the Board's secretary, 116, St. Martin's-lane, W.C.

COMPETITION FOR A DIPLOMA DESIGN.—The University of London offers a prize of five guineas to the students of the art schools of London, and others, for an original design for degree diplomas granted by the University to internal students. The design, which must include a specified wording, should be simple and dignified in character, and should depend in the main for its artistic effect upon the lettering employed, and the arrangement of type and spacing. Complementary design upon the diploma, though it must be simple in style and suitable for a University document, is not strictly excluded; nor, subject to the conditions stated, are designs employing colour. Competitors may insert the arms of the University or omit them, as seems most congruous with the design as a whole. Room for the seal of the University, measuring 2½ in. in diameter, is to be left. It is intended that the diploma should consist of stout paper, and not of parchment, and that in size it should not exceed 14 in. by 20 in., but no special dimensions are enjoined. The diploma will be engraved, unless there be special reasons for adopting some other method. Suggestions as to the method most suited to the reproduction of their designs are invited from those competing. Competitors should remember that no design can be adopted which is not of a practical character, where, *e.g.*, insufficient space is left for the filling in of names, dates, subjects, &c. Further particulars may be obtained from the Academic Registrar, University of London, S.W., to whom designs must be sent on or before April 1, 1903.

LECTURES ON THE NATURAL HISTORY OF DECORATIVE ART.—The following lectures on the natural history of decorative art will be delivered at the Horniman Museum, London-road, Forest Hill, S.E. Admission will be free. Tickets for the course may be obtained from the Clerk of the Council, County Hall, Spring-gardens, S.W.:—April 18.—Lecture 1.—How Designs Arise. April 25.—Lecture 2.—Art and Handicraft. May 2.—Lecture 3.—Art as a Means of Instruction. May 9.—Lecture 4.—Art and Religion. May 16.—Lecture 5.—The Decorative Art of British New Guinea as an Example of Method.

OPEN SPACES.—The new open space which the London County Council has named Wandsworth Park was opened on Saturday last week by Lieut.-Colonel A. Rotton. The park is situate between Putney Bridge-road and the river. The Wandsworth Council contributed 15,500*l.* towards the acquisition of the ground, while 5,838*l.* was publicly subscribed.——Mr. John Piggott, Chairman of the Parks Committee of the London County Council, on the same day dedicated to the use of the public an extension of Brockwell Park. The original cost of the park was 119,257*l.*, and the extension has cost an additional 64,500*l.* Of this latter sum 32,250*l.* has been contributed by the London County Council, 8,000*l.* from the Camberwell Borough Council, 20,000*l.* by the Lambeth Borough Council, 2,500*l.* by the Southwark Borough Council, and 1,750*l.* was obtained in private subscriptions. Mr. Piggott mentioned that when the Council came into existence in 1891 there were only forty open spaces in the Metropolis, now there are 102. The acreage of the parks in 1891 was 2,656 acres, and now there were 4,027 acres of open space.

WINDOW CLEANING OR PAINTING.—The Local Government and Taxation Committee of the London County Council reported as follows at the meeting of the Council on Tuesday last week:—"Our attention has been called to the fact that, although under the Council's by-laws as to window cleaning or painting, persons are prohibited from standing on window-sills more than 6 ft. in height from the level of the ground, without sufficient support, to the danger of residents or passengers, no provision is made as regards persons standing on copings or other projections, notwithstanding that the risk in such cases may be even greater than that involved by standing on window-sills. Proceedings taken under the Council's by-laws in a recent case failed, owing to the fact that it was shown that the person was standing on a coping and not on a window sill. We therefore suggested to the Home Secretary that the by-laws should be amended by the addition of the words 'or other projection,' so that cases of the kind referred to might be dealt with. The Home Secretary states that he feels unable to agree to the proposed extension of the by-laws, as such extension would, he thinks, tend to interfere unduly with persons engaged on house repairs and the like. The Home Secretary further states that he is inclined to doubt whether the by-laws already in force are not to some extent open to this objection, and that, as the by-laws were chiefly designed to meet the case of domestic servants, he would suggest for the consideration of the Council whether it would not be desirable to limit the by-laws to domestic servants, in which case the by-laws might be amended so as to include one or two cases such as that of servants kneeling on window-sills, which have been found to be excluded from the present by-laws. We think that it would be very inexpedient for the by-laws to be limited to domestic servants. It is true that the by-laws were in the first place chiefly designed to meet the case of domestic servants, but they have done much towards affording protection to other classes of employees. Window cleaning, especially in the central districts of London, where business premises, flats, and similar buildings abutting on streets are numerous, is largely carried out by men in the employ of window-cleaning companies, and it is to this class of employees, and not to domestic servants, that fatal accidents most frequently occur. It has been held that by-laws for good rule and government can only be made from the point of view of danger to the public, and there is much greater danger to the public in the case of the Companies' employees than in that of domestic servants, as the latter are generally employed in private houses, which, more often than not, have areas or gardens in front of them. We concur in the suggestion that the by-laws should be amended so as to include kneeling on window sills. We have given directions for the above views to be communicated to the Home Secretary, and we recommend—That the course taken be approved." The recommendation was agreed to.

THE ACETYLENE ASSOCIATION. — The second annual general meeting of the members of the Acetylene Association was held on Thursday, February 26, at the Westminster Palace Hotel, Victoria-street, S.W., Mr. F. G. Worth, Chairman of the Association, presiding. There was a large attendance of members. In moving the adoption of the report and accounts, the Chairman remarked that during the year the Council of the Association had invited the members to favour them with their views and suggestions on questions which were raised at the previous general meeting as to the safety of generators, the standard quality of carbide, and the action of the railway in regard to the carriage of carbide. A great number of replies were received, and subsequently committees were appointed to deal with and report on the questions of generators, carbide of calcium, and purifiers. The reports of the various committees on these points were submitted to the Council, and some of the suggestions of the honorary members who were on the Home Office were adopted. The only important points wherein there was divergence between the suggested regulations of the Association and the conditions recommended by the Home Office were as to the pressure allowable in the apparatus and in the service-pipe. In order that these questions might be discussed the Home Office authorities arranged to receive a deputation from the Association to discuss the points of divergence. The Council of the Association had proposed that the limit of pressure in any part of a generator should not exceed that of 50 in. of water, and they had further recommended that the limit of pressure in service-pipes within the house should not exceed 10 in. of water. These two points were discussed at great length, with the final result that Captain Thompson stated that the Home Office would be quite agreeable to consider any recommendation from the Association as to any apparatus which, from conditions other than ordinary, might reasonably claim to be exempted from the 20-in. limit. It would, of course, be a satisfaction to the Council to have received official Home Office recognition of its utility, and he might add that the Public Control Department of the London County Council and a great number of Local Authorities throughout the country thought equally lightly of the Association. In regard to the railway companies, he was happy to report that, although the companies did not at present see their way to carry carbide at reduced rates, they had prepared a special consignment note, which would come into force from March 1, for carbide of calcium as a separate product, with the omission of the "dangerous goods" classification. In many other directions the Association had done useful work, including the removal of difficulties which occurred through the working of the Petroleum Acts as applied to carbide of calcium being interpreted in a sense not intended by the Order in Council. In conclusion he expressed the strong opinion that by working together, and sinking, as members of the Association, all trade and personal differences, much might be accomplished for the general benefit.—Sir Charles Forbes seconded the motion, which was carried unanimously. The meeting proceeded to formal business, and to the re-election and election of members of the Council. It was agreed unanimously that the *Journal of Acetylene* should again be the official organ of the Association. The meeting closed with a cordial vote of thanks to the Chairman.

BOURNEMOUTH MASTER BUILDERS' ASSOCIATION.—The fifth annual dinner in connexion with this Association was held at the Hotel Metropole on the 28th ult. The chair was occupied by the President of the Association, Mr. J. W. Davis. The loyal and patriotic toasts having been honoured, Alderman Webber proposed "The Trade and Commerce of Bournemouth," to which Mr. G. Martin and Mr. F. T. Cutler responded. "The Borough Justices" was proposed by Alderman Mate, and replied to by the Mayor, and this was followed by the toast of "The Mayor, Corporation, and Borough Officials," proposed by Mr. Hoare, and responded to by the Mayor. Captain E. W. Jenkins submitted the "The Architectural Profession," Mr. Gifford replying; and Alderman Mattocks next proposed "The Master Builders' and Decorators' Association." He suggested that the master builders might devote their attention to technical instruction in order to produce skilled workmen, and improve the relationship between employer and employee. The President, in acknowledging the toast, thanked the members for having elected him to that position, and said that nothing had occurred to disturb the peace and harmony which existed between employers and employed. There was no society which was of greater advantage to the town than their Association, and it was very disappointing to the members, after doing so much in the direction of the development and improvement of the district, that they could not keep down the rates. Councillor Mintz, also replying, said the Association was one which had large interests, when it was recollected that the members paid 100,000*l.* to 150,000*l.* per annum in wages. Other toasts included "Kindred Associations," proposed by Mr. J. A. Nethercoate, and responded to by Messrs. Marshall and Doggrell, of Southampton; and the "Visitors," given by Mr. A. Hillier, and responded to by Mr. Millard.

ST. LOUIS EXHIBITION.—Mr. Balfour, in the House of Commons on Tuesday, informed Mr. Norman that the Government had accepted the invitation of the United States Government to take part in the St. Louis Exhibition of 1904. The extent to which this country would participate, and the exact modus operandi were under consideration, and he had not at present any information to give.

LIVERPOOL HOUSING SCHEME. — The Housing Committee of the Liverpool Corporation has just adopted a proposal by Mr. John A. Brodie, M.Inst.C.E., the City Engineer, which is expected greatly to assist the solution of the problem of providing cheap and healthy dwellings for the labouring poor without expense to the ratepayers. Tentatively it is to be put into operation on a small scale. On a site of 413 sq. yds. in Eldon-street, at the north end, the proposal is to erect a building covering 234 sq. yds., leaving an open space of 179 sq. yds. The building consists of three floors,

on each of which four tenements are arranged. Each tenement comprises a living-room 15 ft. by 10 ft. 3 in., and two bedrooms, averaging 7 ft. 4 in. by 14 ft. 9 in., the height of the rooms from the floor to the ceiling being 10 ft. Each tenement is provided with a separate entrance door from the balcony facing the street. The stairs and balconies are on the front elevation and open to full view from the street, with the object of avoiding the evils of common stairs and passages within the buildings. As the roof is practically flat (the slope being that usually allowed as crossfall for flagged footwalks), a stair has been provided to the roof, which, being surrounded by parapet walls and made waterproof, can be used for washhouses and drying ground, or, if desired, as a playground. As to building material for the foundation, walls, floors, roofs, &c., crushed clinker from the refuse destructors will be used and Portland cement, with a small proportion of embedded steel or iron. Mr. Brodie sets down the cost of the 413 square yards of land at 247*l.* 16*s.*, and of the completed building 1,230*l.*, making the total capital expenditure 1,477*l.* 16*s.* The rent of the twelve tenements at 4*s.* each per week amounts to 124*l.* 16*s.*, and deducting 49*l.* 18*s.* 4*d.* for outgoings, leaves 74*l.* 17*s.* 8*d.*, or 5 per cent. return on the capital expenditure.

ATTWOOD MEMORIAL BRASS, SOUTHWICK, SUNDERLAND.—There has been erected on the south wall of the nave in Holy Trinity Church, Southwick, Sunderland, a memorial brass to Mr. Edward Attwood and Elizabeth, his wife, who for nearly half a century were associated with Southwick. The brass has been executed by Messrs. Hart, Son, Peard, & Co., Ltd., London.

INTERNATIONAL SOCIETY OF SCULPTORS, PAINTERS, AND GRAVERS.—The next exhibition of the International Society of Sculptors, Painters, and Gravers will be held in Buda Pest, opening early in April. The British Section of the Society was last year invited by the Hungarian Society of the Fine Arts, the National, official, representative artistic body of Hungary, to make an exhibition at Buda Pest, and the International Society has again been invited by the Hungarians to contribute and arrange a British Section. Some seventy pictures, representative works of nearly all the members, were last week sent to Buda Pest.

SALES OF BOOKS, DRAWINGS, PRINTS, &C.—The following illustrated works have been sold recently by Messrs. Sotheby, Wilkinson, & Hodge:—Rudolph Ackermann's "History of the University of Oxford," 1814, with coloured plates by Pugin, 14*l.* 5*s.*; "History of the University of Cambridge," 1815, with coloured plates by Pugin, Westall, and Mackenzie, 17*l.*; "History of the Colleges of Winchester, Eton, and Westminster," 1826, 21*l.*; and "The Microcosm of London," 1808-9, with nearly 100 coloured plates by Pugin and Rowlandson, 20*l.*: W. H. Pyne's "History of the Royal Residences of Windsor Castle, St. James's Palace, Kensington Palace, Carlton House," &c., 1819, with 100 coloured plates, 19*l.*; George Baker's "History and Antiquities of the County of Northampton," 1822-41, on large paper, 10*l.* 5*s.*; J. A. Symonds's "Renaissance in Italy," 1880-1, five vols. in the original cloth, 14*l.*; Dugdale's "Monasticon," by Caley and others, eight vols., 1846, 13*l.* 10*s.*; Whitaker's "Richmondshire," 1823, 11*l.* 15*s.*; "The Houghton Gallery," 1788, with 130 prints, 29*l.*; F. W. Blagdon's "Authentic Memoirs of the late George Morland," 1806, with twenty beautifully coloured plates by Bell, Dodd, and others, being a very fine uncut copy of a work of which coloured examples are very rare, 56*l.*; J. B. Papworth's "Select Views of London," 1816, with seventy-six coloured plates, 12*l.* 15*s.*; James Malton's "Picturesque and Descriptive View of the City of Dublin," 1802, containing twenty-five finely executed coloured drawings, 18*l.*; Richard Lord Braybrooke's "History of Audley End," 1836, a presentation copy, on large paper, with many additional rare drawings, portraits, &c., 18*l.*; C. M. Westmacott's "The English Spy," 1825-6, a large paper copy of the first edition, 24*l.* 10*s.*; Lafreri's "Speculum Romanæ Magnificentiæ," Rome, 1550, 150 fine engravings of the Vatican, &c., in an atlas folio, 25*l.*; and "Opera Nova di Recami intitolata le Richezze della bellissime et virtuosissime Donne," &c., 46 leaves of lace, embroidery, and similar patterns, Venice, 1559, in brown calf binding, and bearing on the upper cover the large arms of the Princess Anna of Denmark, 146*l.* On March 30 will be offered for sale at Sotheby's auction-rooms a selection from Lord Crewe's choice collection of original works by William Blake. The eighteen lots comprise a set of twelve coloured drawings (6¾ in. by 5 in.) to illustrate Milton's "L'Allegro" and "Il Penseroso," with the text of the poems and explanatory notes upon the drawings in MS.—a series which, it is said, has not been published; proof impressions on India paper of the Illustrations of the Book of Job, 1825, with the twenty-one original coloured designs; and fine copies of the "Songs of Innocence and Experience," 1783, with fifty-four coloured plates, "Jerusalem, the Emanation of the Giant Albron," 1804, with 100 plates, and of the original issues of "The Book of Thel," 1789, "Visions of the Daughters of Albion," 1793, "Europe, a Prophecy," 1794, and "The Marriage of Heaven and Hell."

THE HOUSING QUESTION IN VENICE.—According to a Report just received from the British Consul, Mr. de Zuccata, rents continue to rise fast in Venice. This is partly due to the fact that a number of houses have been demolished in accordance with the plans for widening streets approved by the Town Council, but the principal cause may be attributed to the speculators who have gone on for years buying houses in all directions, and then giving the tenants notice to quit. A few buildings have been erected by the Municipality for renting separate small lodgings for workmen, but they only contain a limited number of rooms. A committee has been formed in the town, as a branch of the Milan organisation, to erect buildings for supplying cheap and healthy house accommodation for artisans and labourers. The tenants under this scheme would, after paying their rents regularly for thirty years, become proprietors of their dwellings. Where the head of the family dies before the expiration of thirty years an arrangement would be made by the organisation with an insurance company by which the surviving members of the family might continue to lodge in the house without paying any rent. Mr. de Zuccato says it is expected that the municipality and the wealthy citizens will co-operate with this association with the object of improving the dwellings of the industrial classes.

MORTLAKE PARISH CHURCH.—A project is in progress for collecting funds towards the rebuilding of the nave of the church, which has fallen into a state of disrepair. Of the church as built in 1543 there remains the ivy-clad tower surmounted with a cupola; the chancel was erected twenty years ago at a cost of about 3,000*l.*, and the nave in the last two years of George I.'s reign. The church was originally built in 1348 for the Archbishops of Canterbury, who held the manor from before the Conquest until Cranmer exchanged it to Henry VIII.; that sovereign bestowed it upon the Dean and Chapter of Worcester, patrons of the living. In the graveyard were buried Henry Addington (Lord Sidmouth), and the astrologers, John Partridge (1715) and Dr. John Dee (1608). On the site of Dee's house, opposite the west end of the church, Sir Francis Crane established in 1603 the tapestry manufactory, worked until 1625 by Flemings, of whose handicraft a fine example has been preserved at Houghton Hall containing full-length portraits of James I., Anne of Denmark, Charles I., and Queen Henrietta Maria, and their children. One of the most beautiful specimens was acquired for the South Kensington Museum four years ago. It forms one of the famous set of the "History of Vulcan," of which there are examples in foreign collections.

UNIVERSITY EXTENSION COLLEGE, READING.—The Treasury have notified their assent to a scheme whereby the Corporation of Reading will take over, at a cost of 50,000*l.*, the site and buildings of the College at Reading, which was originally established as part of the Oxford University extension scheme, 1892, in what had been the dormitory of St. John's Hospital as attached to the Abbey, and adapted for purposes of the natural science schools. The British Dairy Institute, formerly at Aylesbury, was added to the College on the incorporation of the latter in 1896. The new buildings of the College in Valpy-street and Forbury-road, opened by his present Majesty on June, 11, 1898, were built by Messrs. Henry Higgs & Sons, of Reading as general contractors, after the plans and designs of Mr. S. Slingsby Stallwood, and are illustrated in the *Builder* of September 3, 1898. The College will migrate to a more extensive site on the London-road, and the Corporation intend to utilise their purchase for an enlargement of the municipal buildings in Friar-street and Blagrave-street. The town hall, council-chamber, and public offices were erected nearly thirty years ago. The additional buildings, which comprise the art gallery, museums, &c., are illustrated in our columns of March 10, 1900, Messrs. Cooper & Howell being the architects. The Town Hall, free library, and a museum, illustrated by us on February 3, 1877, were built after plans and designs by Mr. Alfred Waterhouse, who also made the designs for the fittings and furniture of the new council chamber.

LEGAL.

AN ARCHITECT'S CLAIM:

ALLEGATIONS OF NEGLIGENCE.

HEAVY COUNTER-CLAIM.

AT the Southwark County Court on Monday, his Honour Judge Addison, K.C., heard a remitted action in which Mr. H. D. Earl Earl, an architect and surveyor of Worthing, sued Messrs. Pattenden & Co., sack and bag makers, of Bermondsey-street, to recover 50 guineas, balance of a sum of 200 guineas fees for work done as architect for the defendants under a contract for the erection of a grand stand in the churchyard of St. Clement Danes Church, Strand, for the Coronation procession. The contract also stipulated that the plaintiff was to receive 5 per cent. on the net profits of the letting of the seats as soon as they were ascertained, but there was no claim in respect to this. The defendants counter-claimed from the plaintiff 657*l.* 10*s.*, being 157*l.* 10*s.* fees paid for plans which, it was alleged, were wholly useless, and 500*l.* for loss sustained through the plaintiff's alleged negligence. The particulars of the counter-claimed stated that the plans were negligently prepared, and did not provide for the requisite or agreed seating accommodation, nor did they so arrange the seats that the persons who were to occupy the same would have obtained a view of the procession. The plans provided for no gangways, and such gangways had to be provided, and the seating accommodation consequently had to be lessened.

Mr. Warren was counsel for the plaintiff, and Mr. Rose Innes for the defendants.

Mr. Warren, in opening the case, said that the plaintiff's claim was under a written contract which he had performed and executed in every respect. Mr. Pattenden, of the defendant firm, rented the churchyard of St. Clement Danes in order to have erected thereon a stand from which persons could view the Coronation procession. The Rev. Mr. Pennington, the vicar, introduced the plaintiff to Mr. Pattenden, and the plaintiff's plans were accepted, and he was engaged as architect to superintend the erection for the sum of 200 guineas and 5 per cent. of the net profits realised from the letting of seats. The plans were submitted to the Westminster City Council as they were originally drawn, being without intersecting gangways, and they were passed by them, and a licence for the erection of the stand was granted. The work proceeded, certain alterations were carried out by the defendant or his builder, and at last the stand was completed. Soon afterwards the news of the abandonment of the procession came, and the plaintiff, who had received 150 guineas, applied for the balance. Some excuse was made that the defendant had lost the key of his safe, and a second application was made; but the money not being forthcoming, the plaintiff was compelled to enter an action.

The plaintiff said he had been in practice as an architect and surveyor thirty-six years, twenty-five years of which he had been on his own account. He had been engaged by the Government in the erection of prisons; he was the Episcopal Cathedral Surveyor for Edinburgh and in 1897 he was retained by the London County Council for reporting upon and amending drawings for public stands. He also designed several stands which were erected for the late Queen's funeral and for the Coronation Procession, &c. Previous to seeing Mr. Pattenden he had prepared plans for the site in question, and on March 8 or 9 he received a letter from the defendant asking what he would sell them for, as the builder would employ his own architect. He saw the defendant, and explained that he could not sell him the plans, as it would be distinctly unprofessional. He produced them, three in number, and the defendant and Mr. Elkington, his builder, saw them. Nothing was said about the presence or absence of intersecting gangways. There were wide staircases at four points, giving access to all the seats. In reply to the defendant, he offered to prepare the specifications and superintend the erection, &c., for 200 guineas and 5 per cent. of the net profits from the seats. The defendant agreed to the terms, the contract was signed, and 50 guineas was paid as a retainer. The plans provided for seating 3,500 persons, and had they been adhered to, that number could have been accommodated. Within a week he was instructed by the defendant to draw two seat-letting plans, and when they had been prepared, Mr Pattenden suggested a general alteration in the arrangement of the seats and the doing away with the top tier of 700 seats. About the end of March the defendant had a conversation about the provision of intersecting gangways, and he came to the conclusion that he would have them in order, as he explained, to make the people as comfortable as possible. Prior to that, however, the original plans as he (plaintiff) first prepared them were submitted to the Westminster Corporation, and they were approved by about April 11. They came to an agreement as to where gangways should be put, and the alterations necessitated the sacrifice of about 200 seats, which the defendant said he did not mind. He had told the defendant that he had erected a stand at St. Mary's Church, near by, without intersecting gangways, and that the Authorities had passed the plans. He also explained that such gangways were of no use, because, in case of a panic, people would not use them, but would go over the top of the seats. The defendant, however, was very firm on the gangways. He intended that Mr. Elkington should erect the stand, but he (plaintiff) persuaded him to put the work out to tender, which would have the effect of keeping Elkington's price down. That was done, and Elkington's tender was accepted. The erection was started about the middle of April, and soon afterwards he (plaintiff), who was in attendance nearly every day, saw that the work was being scamped, the builder putting in smaller timbers than were specified. He told the defendant of this, and he replied that Elkington was a practical man and knew what he was doing, having erected a stand before for him. Subsequently he said he could not help himself, because the builder was entitled to his money every week, and he (the defendant) could not pay it. He added: "You know I am only working this with borrowe

money, and I have paid the parson the whole of it, and I am depending upon the sale of tickets to pay the builder, and you had better get the best you can out of him (Elkington)." Upon that he (plaintiff) said it was a serious thing to deviate from the plans, and probably he (the defendant) would lose his licence, and the tenor of the defendant's reply was, "I am in a difficulty; do the best you can with Elkington." The District Surveyor made a complaint about the deviations, and he (plaintiff) remedied that by making Elkington strengthen the stand in various parts. After that the defendant complained of discrepancies in the plans, and he (plaintiff) told him he must put that down to the deviations made by the builder and himself (the defendant). The defendant still endeavoured to shift the responsibility on to his (plaintiff's) shoulders, and upon that he declined to proceed with the making of the letting plans until he had withdrawn all charges and imputations against him. He had pointed out that the builder was doing away with whole rows of seats and altering the rake of the tiers, but he (the defendant) would not have any alteration made. The three deviations—the altering of the distance between each row of seats, the providing of gangways, and the alteration of the rake—made a considerable difference to the seating accommodation, but in each case the defendant agreed to the alteration. Eventually on May 30 they had a very stormy interview, and witness expressed the opinion that the defendant wanted to drag him across the way to the Law Courts. The defendant replied that he would not think of such a thing, and offered to give him an undertaking to that effect in writing, but he (plaintiff) accepted his word for it. Upon the defendant withdrawing all charges against him, he altered the seat-letting plans to get over the bungling of the builder, and the work was completed. Then came the abandonment of the procession, and he claimed the 50 guineas balance due to him. The defendant said he had got his 6,000*l.* from the insurance company (he having insured against the failure of the procession taking place), and would pay everybody, but he had lost the key of his safe. He made another application for the money on July 4, and then the defendant asked him if he could not let him off the balance, as he had made a big loss. He declined, but offered, on payment of the 50 guineas immediately, to sacrifice the extra fees he was entitled to. The money was not paid, and on July 5 he wrote the defendant. In reply, he received on July 15 the following letter from the defendant, which was dated July 12:—

"I was not a little surprised at receiving your letter of the 5th addressed to St. Clement Danes Church, because on that very day you had called here and seen me, and I thought you were very much relieved at finding I was willing, in exchange for your waiving your claim against me, to abstain from enforcing my heavy claims on you for damages arising from your negligence as an architect. I now beg to withdraw, so far as I can, from this verbal arrangement then come to, and to state that I will as soon as possible make out my claim against you and apply to you for a cheque. I have on so many occasions so fully and forcibly conveyed to you my reasons for complaint that I will not repeat them now." He replied to that and entered his action.

Cross-examined: The plaintiff said he did not consider that the 200 guineas was a big fee. The contract price for erecting the stand was 2,800*l.*, and 5 per cent. on that was nearly 150*l.*, but the 200 guineas included practically everything, whilst, in addition, the job was a special one and deserved a special fee. He was positive that the plans were passed by the Westminster Council before the gangways were placed in them. It was a perfectly proper thing under the circumstances to have a stand to seat 3,500 persons without an intersecting gangway. The rake of the tiers was such in his plans as would allow all persons on the stand to get a view of the middle of the road. He knew many persons complained when they visited the stand, but that was because the defendant was charging seven guineas for seats which did not secure such a good view as some of the two guinea ones. He allowed a distance of 1 ft. 8 in. to about 2 ft. 3 in. from rise to rise.

Re-examined: The defendant altered the rake of the top tier, in some places as much as 2 ft. 6 in., which obstructed the view of persons in the back seats of the second tier. His excuse was that Mr. Elkington was a practical man, having put up a stand for him before.

Mr. Bernard Dicksee, A.R.I.B.A, said he was District Surveyor for Newington and part of the parish of St. George-the-Martyr, under the London Building Act. He had had great experience of stands, having had about 600 under his supervision at the time of the Diamond Jubilee and a very large number last year. As to the plaintiff's plans, they were perfectly satisfactory working drawings, and contained no faults. The site was a very awkward one, there being hardly a straight line. He had calculated the seating accommodation of the first two tiers, and they gave room for 2,806 persons, without gangways, and 2,606 if gangways were provided. That was allowing 1 ft. 9 in. in width and from 2 ft. 1½ in. to 2 ft. 2 in. from back to back. There were a few places where the distance was only 1 ft. 9 in. With a width of only 1 ft. 6 in. accommodation could have been provided for 3,038 persons, including gangways. As to the lines of vision, he could not find a seat from which the person could not have obtained a view of the procession.

His Honour: If you had had to make plans for this difficult site, would you have drawn them differently?

Witness: Well, no two men would plan out such a site in the same way, but I saw nothing here to complain of.

Cross-examined: The provision of intersecting gangways was determined by circumstances. He certainly would have provided gangways on this stand. The London County Council allowed in theatres 1 ft. 6 in. in width where seats contained no arms, and 2 ft. back to back.

Mr. Lowton R. Ford, F.S.I., A.R.I.B.A., and District Surveyor for Bermondsey, said the plans, generally speaking, were perfectly intelligible, and, taken with the specifications and sketches accompanying them, were perfectly complete. He corroborated Mr. Dicksee in all he had said. The specifications were particularly skilfully drawn.

Cross-examined: Had he made plans for the site he would have made them without gangways, and have pointed out to his client that if such were provided the seating accommodation would be so much less. There was no need for gangways as the seats had no backs, and persons could as easily step down from one seat to another as down steps in a proper gangway.

His Honour: Could you have arranged the seats better?

Witness: I really do not think I could.

This concluded the plaintiff's case, it having lasted the whole of the day's sitting.

Mr. Rose-Innes, on behalf of the defendant, entered a protest against the suggestions made by the plaintiff as to the reason Mr. Pattenden had resisted the claim. There was no truth, he declared, in the story about Mr. Pattenden having lost the key of his safe; he was a man of means, having three banking accounts, and if he had felt he ought to pay he could have drawn a cheque for the amount without the least difficulty. He planked down in hard cash 3,600*l.* for the site, and he spared nothing in his endeavour to make the stand safe and satisfactory. He engaged the plaintiff as a man of extra skill, and paid him accordingly, and did not, in accepting the plans, trouble to look at them to see if the necessary gangways were provided. But his Honour would hear from the witnesses that the gangways were put in before the plans were adopted by the Westminster Council, otherwise they would not have been passed by them. The result of the inclusion of the gangways made a difference of over 200 seats, the price of which the defendant had lost, and he felt, therefore, that he ought to be paid that loss by the plaintiff.

His Honour: My difficulty is that whoever you had called in, if you had insisted on these gangways, you would have lost these seats. His representation as to the number of seats did not make you take this site.

Mr. Rose-Innes: But he sold us plans showing a certain number of seats, and my client, depending upon him as an expert, accepted the plans as proper ones, and fixed his prices according to the number of seats the plaintiff said they would provide. The plans turned out to be absolutely useless in their original condition because they would not have been accepted by the Westminster Council, and therefore I submit that as the plaintiff is an expert, on whom my client, who is not an architect or builder, relied, my client is entitled to recover the damages which accrued from the defect in the plans from the plaintiff.

At this point the action was adjourned.

A BUILDER'S ACTION AGAINST DECORATORS.

THE case of Davidson *v.* Hooydonk & Co., Ltd., came before the Court of Appeal, composed of Lords Justices Vaughan Williams, Stirling, and Mathew, on the 4th inst., on the appeal of the plaintiff from a judgment of Mr. Justice Wright, sitting without a jury, in the King's Bench Division on April 17 last. The case was reported in the issue of the *Builder* for April 26, 1902.

Mr. Witt, K.C. (with him Mr. Ernest Pollock), in support of the appeal, said that Mr. Justice Wright had given judgment for the defendants, and from that decision the plaintiff now appealed. The facts which were not in dispute involved two points of law. The first point on the appeal was whether the learned Judge was right in saying there was no privity of contract between the plaintiff and the defendants. The plaintiff said there was. The second point was whether, assuming there was, as the learned Judge had found, a conversion by the defendants of the plaintiff's property, the damages had been assessed on the true legal basis. The facts were these:—In December, 1898, the plaintiff, who is a builder at Newcastle, entered into a contract with the London and Lancashire, Ltd., of Bradford, to build a theatre at Blackburn, and amongst the things the plaintiff was to do as set out in the specification, he was to provide all scaffolding. He was to provide all the scaffolding, and its value was 200*l.* He had to put up a special scaffolding, and when he had finished with it he had to leave it, not only for all the trades, but also for the decorators. It had, therefore, to be of a special character. Then the London and Lancashire, Ltd., entered into a contract with the defendants, decorators in London, to do the decorating work of the theatre, and in that contract there was a provision that 200*l.* was to be paid to Mr. S. F. Davidson, the plaintiff, for the scaffolding, which he would leave in position for the use of the decorators. This scaffolding was to become the property of the decorating contractors, and was to be removed by them on the completion of the work. After defendants came on the scene, plaintiff went away. When defendants had finished their work, they took down the scaffolding and sold it for the break-up price of 43*l.* The plaintiff said he wanted 200*l.* for it, because he left it for the defendants' use, and it was his scaffolding. What plaintiff said was that he left the scaffolding there knowing that defendants were going to use it, and defendants knowing he had given that assent used it for their work, and when defendants had done their work they took it, appropriated, and sold it. Defendants said that they were willing to admit that plaintiff was entitled to 43*l.*, the amount for which the scaffolding was sold, and brought that sum into court. Defendants said that there was no contract between themselves and the plaintiff; that their contract was with the company, and was that they were to pay the plaintiff; that the plaintiff could not sue them upon that contract; and that the company were the only persons who could sue them. He (counsel) did not say that plaintiff could sue defendants on that bargain, because it was made between the defendants and the company; but he did say this, that where with the assent of the plaintiff goods were to be put under the control of the defendants, and the defendants taking them, knowing they had the plaintiff's assent to use them, and sold them, the defendants had to pay for them.

Lord Justice Mathew: Pay how much?

Mr. Witt: 200*l.* We proved at the trial that the scaffolding cost 209*l.* 3s. 9d. My client would not have sold it for the break-up price of 43*l.*, but would have taken it down himself and used it elsewhere. The decorators were to get 1,500*l.* for the whole work, and there was a clause in the contract that out of that 1,500*l.* 200*l.* belonged to the scaffolder, and that 200*l* belonged to the plaintiff, because the scaffolding belonged to him. He contended therefore that the plaintiff was entitled to recover from the defendants the 200*l.*, the value of the scaffolding.

Mr. Arthur Powell, K.C, having addressed the Court on behalf of the defendants in support of the judgment in the Court below, their Lordships affirmed the decision of Mr. Justice Wright, and dismissed the appeal with costs.

BUILDING BEYOND THE BUILDING LINE.

AT Marylebone Police Court, a few days ago, Mr. Louis Sinclair, M.P., was summoned by Mr. Thomas Chilvers, on behalf of the London County Council, for unlawfully erecting a building beyond the general line of buildings of Netherall-gardens, Hampstead, without the consent in writing of the Council, whereby he became liable to a penalty and to have an order made to demolish the building or any part thereof. The matter having been fully argued, and the building viewed by Mr. Curtis Bennett, who was of opinion that it was unsightly and an eyesore to the residents next door, an order was now made for its demolition within twenty-eight days, and a fine inflicted on the defendant of 10s. with 3*l.* 7s. costs. On a point raised the magistrate consented to grant a case.

ACTION BY CONTRACTOR AGAINST A DISTRICT COUNCIL.

THE case of Boyson *v.* the Urban District Council of Altrincham came before the Court of Appeal, composed of the Lord Chancellor, the Lord Chief Justice of England, and the president of the Probate Division, on the 20th ult., on the appeal of the plaintiff from an order of Mr. Justice Wills in an action brought by the plaintiff, a contractor, against the defendants for damages for not carrying out a contract with regard to sewage works. It appeared that the plaintiff's tender of 7,000*l.* for the work was accepted. He was required by the defendants to find two sureties to execute a bond in respect of the carrying out of the work, and his allegation was that he sent in the names of two sureties, who were approved of by the defendants. The plaintiff in July, 1901, received written notice from defendants to attend with his sureties at defendants' offices on July 8 for the purpose of signing the contract and the bond of suretyship. As the plaintiff and his sureties could not attend at the time and place mentioned, defendants gave the plaintiff notice that they had cancelled the acceptance of his tender. The plaintiff's case was that as he was always willing to sign the contract and his sureties the bond, the refusal of the defendants to allow him to execute the work entitled him to damages. The defence was a general denial of liability. Mr. Justice Wills held that there was no binding contract, and entered judgment for the

defendants. From this decision the plaintiff appealed.

At the conclusion of the arguments the Court upheld the decision of Mr. Justice Wills that there was no binding contract, and the appeal was accordingly dismissed with costs.

Mr. Montague Lush, K.C., and Mr. Macnaghton appeared for the appellant, and Mr. Pickford, K.C., and Mr. Langdon for the respondents.

APPEAL AT THE INSTANCE OF THE WARWICKSHIRE COUNTY COUNCIL.

THE hearing of the case of the Attorney-General *v.* the Oxford Canal Navigation concluded before the Court of Appeal, composed of the Master of the Rolls and Lords Justices Romer and Cozens-Hardy, on the 24th ult., on the appeal of the plaintiff from a decision of Mr. Justice Kekewich in the Chancery Division. The action was brought by the Attorney-General on the relation of the Warwickshire County Council for a declaration that defendants were liable to keep in repair the fences of the side bank and inclined embankments approaching a bridge known as the Tassess Canal Bridge, the plaintiffs complaining that the fences had fallen out of repair, and that thereby a danger was caused to the public.

The facts were, shortly, these :—The defendants, by powers conferred on them by certain statutes passed in the reign of George III., but since repealed, cut through a main road at Foleshill, Warwickshire, called the Coventry and Stoney Stanton-road, and carried the road over their canal by means of the bridge in question. An Act of George IV., which repealed the statutes passed in the previous reign, vested all bridges, embankments, fences, &c., and the soil thereof in the defendants. It was also enacted by that statute that defendants should provide a proper fence on each side bridge, carrying a carriage road over the canal, such fence to be not less than 4 ft. above the surface of the bridge. Section 26 of the Act provided that defendants should not be liable to repair any part of the roads approaching to any of the bridges made over the canal after the roads had been made and used for one year, and put into good repair by the defendants beyond or further than the extremity of the wing walls of any such bridges. But this section contained a proviso that nothing therein contained should be construed to exonerate the defendants from the future repairs of all such bridges, and of the wing walls, ramparts, and side banks thereof. The road which crossed the canal at Tassess Bridge was now vested in the Warwickshire County Council, and they contended that defendants were, by virtue of Section 26, liable to keep in repair the fences of the side bank and inclined embankments approaching the bridge. The defendants pleaded a denial of liability, and Mr. Justice Kekewich at the trial held that Section 26 exonerated them from liability to repair the fences. Hence the present appeal of the plaintiff.

In the result their Lordships held that no such liability as that alleged rested on the defendants after the expiration of one year from the time when the approach was made and put into good and sufficient repair. The judgment of Mr. Justice Kekewich was therefore affirmed, and the appeal dismissed with costs.

THE ACQUISITION OF PREMISES UNDER THE HOUSING OF THE WORKING CLASSES ACT, 1890.

THE case of *in re* an arbitration between Chandler's Wiltshire Brewery Co. and the London County Council came before Mr. Justice Wright, sitting without a jury, in the King's Bench Division on the 20th ult., on a special case stated by an arbitrator appointed under the Housing of the Working Classes Act, 1890, to assess compensation under a claim by the Brewery Co. for the compulsory acquirement by the County Council of premises in which the company were interested, and of which the company claimed to be entitled as the assignees of a lease dated January 30, 1899, made between Mr. John Holder of the one part and a Mr. George Button of the other part. By the lease the lessor, in consideration of 500*l.* paid to him by the lessee, demised the premises to the lessee Button for thirty years from December 25, 1899, at an annual rent of 47*l.* In addition to the usual covenants, the lease contained a covenant by the lessee that he would use the premises as a beerhouse and for no other trade. This lease was afterwards assigned to the Brewery Co., and the company, in consideration of 800*l.* paid to them by one Sorrell, demised the premises to him for a term of twenty-two years from December 25, 1896, at the following rents :—First, a yearly rent of 47*l.*; secondly, such sums as the lessors might expend in maintaining the insurance of the premises against fire ; and thirdly, the sum of 200*l.* in any and every year in which the lessee should, in breach of a covenant contained in the lease, purchase from any other persons than the company any malt liquors to be sold on the premises, or should sell at the premises any such articles which had not been purchased from the company. The lessee covenanted to deal exclusively with the company for all malt liquors to be sold or consumed on the premises. The date of the under-lease was March 24, 1897. The company contended before the arbitrator that on the County Council acquiring the premises they were entitled as compensation to the fair market value of their interest in the premises, having regard to the covenant mentioned and to the profit they might reasonably anticipate to make from the premises being a "tied house" during the continuance of the term. They fixed the compensation due to them at the sum of 927*l.* 10*s.* The Council, on the other hand, contended that by virtue of the Housing of the Working Classes Act, 1890, the company were only entitled to compensation for the loss of their interest in the land required, and that the benefit of the covenant was not an interest in land within the meaning of the Act, and said that 5*s.* was sufficient compensation. The arbitrator, by consent, made an alternative award. He held that if the existence of the covenant should be taken into consideration, the amount to be paid as compensation to the company was 653*l.* ; if not, that the sum to be paid to the company in respect of their interest was to be 10*s.*

After hearing arguments, his Lordship held that the award must be for the larger sum found by the arbitrator, on the ground that the covenant must be taken into consideration in assessing the market value of the lease.

Judgment accordingly.

Mr. Reginald Bray, K.C., and Mr. Henry Kisch appeared for the Brewery Co. ; and Mr. Cripps, K.C., and Mr. Corrie Grant for the County Council.

PATENTS OF THE WEEK.

APPLICATIONS PUBLISHED.*

3,460 of 1902.—M. SHEARER : *Radiators for Heating and Cooling Purposes.*

The folding or corrugating of strips of metal or other material, and perforating the same to enable the pipe or pipes to be passed through, thus forming a radiator.

5,567 of 1902.—A. DREW : *Method of Supporting the Upper or Sliding Section or Sections of Extension Ladders.*

A support for the sliding portion of an extension ladder made in one piece and so shaped and balanced so as to operate automatically in raising, locking, and lowering the same.

5,873 of 1902.—J. L. FERRELL : *Wood Preserving.*

A process of impregnating wood, which consists in heating the wood to such a degree as to expand and discharge water of sap and vapours normally contained therein, submerging the heated wood in a chemical fluid, and then causing the wood to imbibe the said fluid by cooling the same whilst submerged.

6,206 of 1902.—J. SILBERMANN : *Heating or Heat Radiating Apparatus.*

A heating apparatus, comprising a hollow casing divided by a vertical central partition into two chambers, the internal walls of the chambers forming the fireplace, the chambers themselves being provided with horizontal or vertical partitions forming a zigzag course for the air, which enters and leaves each chamber through conduits arranged respectively at the lower and upper parts thereof.

3,015 of 1902.—J. COLLINS and A. ALLARY : *Bolts for Exit or Emergency Doors and the Like.*

This consists in the combination of a bar, attached by a parallel motion to the door, actuating a sliding central bolt. It further consists in the combination of vertical rods connected with the sliding central bolt by means of bell cranks, or a disc, and actuated by the bar attached to the door by the parallel motion aforesaid.

3,081 of 1902.—O. GRAETZER : *Method or Means for Forming Screw Threads in Stone, Brickwork, or the Like for the Reception of Fastening Hooks, Screws, and other Screw Threaded Articles.*

Method of producing screw threads in stone, brickwork, or the like, in which the screw threaded member, having a cylindrical spindle, and provided with sharp threads, is inserted into a hole previously bored to the diameter of said spindle, and forms or cuts in the action of being screwed therein a complete thread in the walls of said hole.

6,643 of 1902.—W. HEWITT : *Ornamental Tiles.*

A tile having a metal ornament applied to its face and a recess formed in its surface and a metal ornament fixed into the said recess.

10,829 of 1902.—M. J. ADAMS : *Liquid Distributing Apparatus for Filters.*

Liquid distributor apparatus for filters, consisting of a siphon attachment, which, whilst in transit over a filter surface, draws a supply from a channel and discharges it through distributing fittings to the surface of the filtrant.

23,751 of 1902.—R. BODLAENDER : *Vehicles for Mixing and Transporting Mortar and like Substances.*

A vehicle for mixing and transporting mortar and like substances wherein a mixer is provided which is adapted to rotate during the travel of the vehicle, characterised by the employment of a mixing drum, mounted on or carried by springs or resilient supports on one of the axles of the vehicle, with the object of assisting the mixing operation by the powerful oscillations set up by the springs or resilient supports during the travel of the vehicle, and of preventing deposition of the solid ingredients of the mortar, even when the mixer has been thrown out of gear, in addition to preserving the frame of the vehicle.

24,211 of 1902.—J. MARESCH : *Construction of Ceilings.*

Ceilings consisting of solid link stones having a recess on the inner vertical surface, to be placed over a lath at the side of the beam, and a slanting outer surface with recesses and filling channels, and hollow stones having an inwardly inclined wall at one end with recess and filling channel corresponding to the outer surface of the link stones, and a nose at the other end adapted to be placed on a lath at the side of the next beam, prolongations of the base of the link stones and of the hollow stones touching each other below the beam.

27,988 of 1902.—H. H. LAKE (Fried. Krupp Grusonwerk) : *Stone Crushers.*

A stone crusher provided with a reversible jaw having both sides made with crushing surfaces.

25,852 of 1902.—T. DARLINGTON : *Means for Ventilating Brick Buildings.*

Means for ventilating brick buildings consisting of bricks formed on one face with regular parallel projections in combination with ruberoid or other sheeting bearing against said projections and maintaining air passages.

19,352 of 1902.—L. A. MORRISON : *Construction of Walls and Floors.*

This consists in the combination with a plurality of blocks having a plurality of openings extending therethrough, of a plurality of blocks alternately arranged with the said blocks and provided with side recesses corresponding to half the dimension of the openings and being designed to be placed together to form openings registering with the aforesaid openings, so as to break joint and form conduits.

6,239 of 1902.—A. R. HUSKISSON : *Casement.*

A casement comprising a fixed frame, a folding frame hinged to the fixed frame, an inner frame hinged to the folding frame, a bolt connexion between the folding and inner frames, a sliding pin on the inside and a slide link stud on the outside of the inner frame, a slide link capable of being connected with either the sliding pin or the slide link stud, and a catch for holding the folding leaf in the closed position.

6,720 of 1902.—G. JENNINGS, LTD., & J. MORLEY : *Water Closets and the Like and Means for Fixing the Same.*

According to this invention the pans of water-closets, sinks, and the like are removably attached to brackets built into the wall. At the back of the pan and made in one with it is a flat plate which is square at its rear end to abut against the wall and on the underside of this plate is a dovetailed lug which enters loosely between two inclined plates which form the bracket. Between these plates and the dove-tailed lug are two loose plates supported on guide pins fixed to the inner faces of the bracket plates and set screws provided in the latter, by which the loose plates can be forced against the sides of the dovetailed lug so holding it and at the same time drawing the closet plate down on to the top of the bracket. The bracket is fixed to a horizontal plate let into the wall. The sides of this plate are first built in so that the plate forms a bridge supporting the wall above the opening which has to be cut for fixing the drain pipe from the pan.

7,874 of 1902.—G. GLOSSOP AND W. ASHWORTH : *Filtering Devices for Taps, Pipes, and the Like.*

A filtering device for taps comprising a chamber formed in the tap adapted to receive a tubular gauze or flat sheets of gauze held in position by a suitable hinged or screwed cap or cover.

9,177 of 1902.—G. L. CANT AND J. B. CANT : *Window Sash Fastener and Tightener.*

A window sash fastener, comprising a pivotted arm carried by the one sash and a finger carried by the other sash. The invention consists in the provision upon the end of the said pivotted arm of a vertical spindle carrying an eccentric locking and tightening device adapted to engage said finger.

10,653 of 1902.—T. HUNTER and J. WEIR : *Automatically-Acting Door Catch or Holder.*

An automatically acting door catch consisting in combination of a casing or its equivalent, a tumbling catch pivotted in the casing, a hook adapted to engage with the tumbling catch, and means for disengaging the catch.

11,804 of 1902.— G. NORMAN : *Construction of Windows, Doors, and Frames therefor.*

According to this invention a framework is made of simple construction, and a sash in two or more sections, all opening inwards, is placed therein, and preferably so as to fall downwards ; but in some cases one or more may be hinged to rise upwards, according to the purpose for which the window may be required, as for warehouses, conservatories, stores, sheds, and the like.

28,410 of 1902.—G. F. NEWMAN : *Waterproofing Compositions.*

A waterproofing composition, consisting of linseed-

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

oil, castor-oil, sulphur, and dryers mixed together in certain proportions and boiled.

28,702 of 1902.—W. HOEKSTRA: *Floor Clamp.*

A floor-jack or clamp, comprising a frame having guides therein, a rammer comprising a stem movable in one of said guides and formed with rack teeth, a clamping-rack bar movable in the other guide, and pinions for engaging the said stem and rack bar.

26,453 of 1902.—J. HARRIS: *Construction of Door and like Bolt.*

This consists in providing the edges of the open guard with means for firmly holding the bolt proper when locked or unlocked, and so prevent accidental locking or unlocking.

21,095 of 1902.—A. POSSEKEL: *Sash Windows.*

This consists in the combination of a continuous groove or recess in the vertical bars of both sashes and in the upper and under horizontal bars of the top and bottom sash respectively, and of a movable tightening frame, countersunk into the window casing adapted to move the sashes to and fro.

21,995 of 1902.—E. FAGES: *Bolts or Fastenings for Doors and the Like.*

A device for fastening doors or the like, applicable to existing latches or bolts, comprising a socket or clamp, links at one end pivotally connected with the said clamp, and at the other end pivotally connected with sockets adapted to receive rods which are connected to and operate bolts arranged at the top and bottom of the door.

5,128 of 1902.—J. C. THRESH: *Portable Disinfecting Apparatus.*

A portable disinfecting apparatus comprising a disinfecting chamber, with perforated or openwork bottom and a perforated false bottom; a water-container resembling a drawer, adapted to be attached in a removable manner to the inside of the disinfecting chamber; and a heating arrangement for heating the water-container for producing the steam for disinfecting articles within the disinfecting-chamber, and for afterwards causing hot-air to pass through the said chamber for drying the articles therein, the whole forming a compound apparatus suitable for disinfecting bedding, clothing, and other articles by means of steam, and subsequently drying them.

26,558 of 1902.—R. F. WENTZ: *Method and Apparatus for Making Cement.*

The art of treating cement ore, consisting in heating a pulverised fuel and mixing therewith the gaseous products arising from the disintegration of highly-heated cement clinker when treated with water and air, and causing the calcination of the ore by the combustion of the mixture.

MEETINGS.

FRIDAY, MARCH 6.

Architectural Association.—Mr. H. B. Creswell and Mr. A. W. S. Cross on "Competitions." 7.30 p.m.

Institution of Junior Engineers.—Mr. W. T. George on "The Use and Maintenance of Electric Motors for Factory Purposes." 8 p.m.

Birmingham Architectural Association.—Mr. E. Guy Dawber on "The Evolution of Chairs."

SATURDAY, MARCH 7.

Architectural Association.—Third spring visit, (1) to the Church of the Immaculate Conception, Farm-street, Berkeley-square. Messrs Romaine-Walker & Besant, architects. (2) The Duke of Marlborough's House, Curzon-street, Mayfair.

Royal Institution.—Right Hon. Lord Rayleigh on "Light: its Origin and Nature." II. 3 p.m.

British Institute of Certified Carpenters (Carpenters' Hall.—6 p.m.

MONDAY, MARCH 9.

Incorporated Institute of British Decorators (Painters' Hall).—Sir William Richmond, R.A., on "The Decoration of St. Paul's Cathedral." 8 p.m.

Surveyors' Institution.—Sir John G. Barton, C.B., on "Valuation for Rating in Ireland." 8 p.m.

Architects' Benevolent Society.—Annual General Meeting of subscribers and donors. The President, Mr. Aston Webb, A.R.A., will preside. 5 p.m.

Society of Arts (Cantor Lectures). — Prof. J. A. Fleming, M.A., D.Sc., F.R.S., on "Hertzian Wave Telegraphy in Theory and Practice."—I. 8 p.m.

Royal Philosophical Society of Glasgow (Architectural Section). — Mr. J. A. L. Tindal on "The Glasgow Building Regulations Act, 1900." 8 p.m.

Bristol Society of Architects. — Mr. R. Stephen Ayling on "Public Abattoirs." 8 p.m.

TUESDAY, MARCH 10.

Royal Institution.—Sir William Abney on "Recent Advances in Photographic Science." III. 3 p.m.

Royal Victoria Hall, Waterloo-road, S.E.—Mr. F. Sherlock on "The Loadstone." 8 p.m.

Manchester Society of Architects (Students' Meeting). Debate: "Should the Campanile of St. Mark's be Rebuilt, and should Restoration be encouraged?"

Institution of Civil Engineers. — 1. Mr. Sidney Preston on "Recent Irrigation in the Punjab." 2. Mr. J. B. Benson on "The Irrigation Weir Across the Bhadar River, Kathiawar." 8 p.m.

WEDNESDAY, MARCH 11.

Architectural Association Discussion Section. — Mr. R. A. Smith on "Electric Lighting of a Small House." 7.30 p.m.

Sanitary Institute.—Discussion to be opened by Dr. G. Reid on "Sewage Disposal and the Qualities Essential in a Sewage Effluent." 8 p.m.

Society of Arts.—Mr. T. Brice Phillips on "Existing Laws, By-Laws, and Regulations Relating to Protection from Fire, with Criticisms and Suggestions." 8 p.m.

Northern Architectural Association.—Annual Meeting, 7.30 p.m.

Institute of Sanitary Engineers, Ltd.—(1) Committee Meetings, 3.40 p.m., 4.15 p.m., and 5.15 p.m. (2) Mr. L. A. Dobbin on "General Municipal Engineering." 7 p.m.

Edinburgh Architectural Association.—Mrs. Traquair on "Decoration" Illustrated by Limelight Views. 8 p.m.

Dover Institute.—Mr. H. Plowright on "Rambles with a Camera." 8 p.m.

THURSDAY, MARCH 12.

Carpenters' Hall, London-wall (Free Lectures on Matters Connected with Building).—Professor T. Roger Smith on "Canterbury Cathedral," Illustrated. 8 p.m.

Institution of Electrical Engineers.—(1) "Distribution Losses in Electric Supply Systems," by Mr. A. D. Constable and Mr. E. Fawssett. (2) An abstract of a Paper read before the Glasgow Local Section, entitled, "A Study of the Phenomenon of Resonance in Electric Circuits by the aid of Oscillograms," by Mr. M. B. Field. 8 p.m.

Leeds and Yorkshire Architectural Society. — Mr. Sidney Greenslade on "The Planning of Recent American Libraries." 6.30 p.m.

Manchester Society of Architects. — Discussion on Students' Drawings.

Architectural Association of Ireland.—Demonstration at No. 19 and 20, Fleet-street, Dublin (Messrs. Egan & Tatlow), on Electricity and Electric Light. 4 p.m.

FRIDAY, MARCH 13.

Institution of Civil Engineers (Students' Meeting).—Mr. A. R. Langton on "Reconstruction of Midland Railway Bridge, No. 27, over the River Trent." 8 p.m.

SATURDAY, MARCH 14.

Royal Institution. — Rt. Hon. Lord Rayleigh on "Light; its Origin and Nature." III. 3 p.m.

Institution of Junior Engineers. — Conversazione. 7 p.m.

Edinburgh Architectural Association.—Visit to Colinton Mains' Hospital.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

February 19.—By FULLER, MOON, & FULLER (at Croydon).

Croydon.—54 and 56, Northbrook-rd., f., w.r. 35*l.* 2s. £465
30, Park-lane, u.t. 38 yrs., g.r. 30*l.*, p. 265
55 and 57, Queen's-rd., u.t. 57 yrs., g.r. 5*l.*, w.r. 37*l.* 14s. 300
19 to 21, Bensham-lane, u.t. 57½ yrs., g.r. 8*l.*, w.r. 75*l.* 8s. 315

February 20.—By FREDERICK WARMAN (at Crouch End).

Crouch End.—1 to 5, Bourne-rd., u.t. 87¼ yrs., g.r. 30*l.*, y.r. 174*l.* 1,825

February 23.—By WILLIAM HOUGHTON.

Walthamstow.—Wood-st., The Plough Inn, u.t. 71 yrs., g.r. 8*l.*, p., with goodwill 32,500
10 to 20 (even), Brandon-rd., u.t. 73 yrs., g.r. 15*l.*, w.r. 158*l.* 12s. 1,095

By FRANCIS DOD & Co.

Haggerston.—44, Whiston-st. (S), f., y.r. 50*l.* 630
46, Whiston-st., f., w.r. 45*l.* 10s. 385
8, Jacobin-st. (farrier's shop and workshop), f., w.r. 29*l.* 18s. 300
Leytonstone.—5, Havelock-ter., f., w.r. 33*l.* 16s. .. 310

By DUNCAN & KIMPTON.

Commercial-rd. East.—Nos. 619, 621, and 623 (Ratcliff Foundry and two shops and premises), area 6,100 ft., f., y.r. 157*l.* 10s. 3,010
Westcliff-on-Sea, Essex.—St Helen's-rd., a corner plot of freehold building land 650

By ELLIOTT, SON, & BOYTON.

Bromley, Kent.—111, High-st, with builder's premises and yard, f., y.r. 35*l.* 1,590
Walworth.—15, Morecambe-st., f., w.r. 22*l.* 2s. .. 410
New Charlton, Kent.—Hardens Manor Way, The Lads of the Village, p.-h., u.t. 15¾ yrs., g.r. 9*l.* 10s., y.r. 80*l.* 680

By FRITH, GARLAND, & Co.

Harringay.—38 and 40, Park-rd., u.t. 77 yrs., g.r. 12*l.* 12s. e.r. 74*l.* 675
10, Harringay-gdns., u.t. 94 yrs., g.r. £7 6s., y.r. 32*l.* 325
Hornsey.—8, Priory-av., u.t. 56¼ yrs., g.r. 8*l.*, e.r. 42*l.* 410

By J. C. PLATT (at Hammersmith).

Hammersmith.—58, The Gr., u.t. 889 yrs., g.r. 10*l.*, e.r. 60*l.* 630
Kilburn.—6, 8, and 10, Buckley-rd., f., y.r. 17*l.* 2,590

February 24.—By DAVID BURNETT & Co.

Finsbury Park.—Avenell-rd., f.g.r. 13*l.* 14s., reversion in 75 yrs. 335
Gillespie-rd., f.g.r. 6*l.* 6s., reversion in 75 yrs. .. 160
Canning Town.—Beaconsfield-rd., f.g.r. 15*l.*, reversion in 88 yrs. 360
Forest Hill.—15, Marmora-rd., u.t. 76½ yrs., g.r. 8*l.*, e.r. 55*l.* 500

By C. W. DAVIES & SON.

Islington.—7, Alfred-st., u.t. 23 yrs., g.r. 4*l.* 5s., y.r. 45*l.* 360
Holloway.—6 and 8, Grove-rd., u.t., 77½ yrs., g.r. 14*l.*, y.r. 72*l.* 755
Stoke Newington.—35, Aden-gr., u.t. 67½ yrs., g.r. 5*l.*, q.r. 32*l.* 363
Tottenham.—185 and 188, Northumberland Pk., u.t. 74 yrs., g.r. 14*l.*, y.r. 68*l.* 533
Harringay.—Hewitt-rd., f.g.r. 10*l.*, reversion in 97½ yrs. 255

By DEBENHAM, TEWSON, & Co.

City of London.—46, Fleet-st. (S), f., y.r. 200*l.* .. 8,400
Covent Garden.—21, New-st. (S), f., y.r. 90*l.* 2,470
New-st., f.g.r. 50*l.*, reversion in 90 yrs. 1,470
Hyde Park.—1, Westbourne-sq., u.t. 47 yrs., g.r. 14*l.*, y.r. 110*l.* 880
3, Westbourne-sq., u.t. 47 yrs., g.r. 15*l.*, y.r. 80*l.* 680
12, Westbourne-sq., u.t. 47 yrs., g.r. 15*l.*, y.r., &c., 94*l.* 770
19, Westbourne-sq., u.t. 47 yrs., g.r. 15*l.*, y.r. 90*l.* £730

By MULLETT, BOOKER, & Co.

Hyde Park.—87, Gloucester-ter., u.t. 35 yrs., g.r. 26*l.*, y.r. 135*l.* 1,520
3, Upper Brook Mews, u.t. 35 yrs., g.r. nil, y.r. 18*l.* 410
Paddington.—7, Blomfield-cres., u.t. 40 yrs., g.r. 12*l.*, y.r. 105*l.* 600
3, 6, and 9, Westbourne-ter.-rd., u.t. 40 yrs., g.r. nil, y.r. 250*l.* 2,030
2, Westbourne-ter.-rd., u.t. 40 yrs., g.r. 10*l.*, y.r. 85*l.* 700

By E. SIMPSON.

New Cross.—75, Pepys-rd., u.t. 67 yrs., g.r. 7*l.* 7s., e.r. 48*l.* 685
80, Bousfield-rd., u.t. 56 yrs., g.r. 5*l.* 5s., y.r. 30*l.* 350
69, Gellatly-rd., u.t. 56 yrs., g.r. 5*l.* 5s., y.r. 30*l.* 335
Brockley.—54, Sprules-rd., u.t. 72 yrs., g.r. 6*l.*, e.r. 35*l.* 420

By FREDERICK WARMAN.

Highbury.—3, Highbury New Pk., u.t. 46½ yrs., g.r. 15*l.*, p. 1,030
53, Highbury New Pk., u.t. 47 yrs., g.r. 15*l.*, p. 1,100
6 and 8, Stradbroke-rd., u.t. 46½ yrs., g.r. 12*l.* 12s., y.r. 90*l.* 915
4, Beresford-ter., u.t. 46½ yrs., g.r. 8*l.* 8s., y.r. 58*l.* 530
Stoke Newington.—76, 78, and 80, Mildmay-rd., u.t. 57½ yrs., g.r. 18. 18s., y.r. 116*l.* 1,300
Canonbury.—17, Grosvenor-rd., u.t. 46½ yrs., g.r. 8*l.* 10s., e.r. 50*l.* 460
Canning Town.—2 to 10 (even), Wharf-st., u.t. 43 yrs., g.r. 5*l.*, w.r. 96*l.* 4s. 705

By GEORGE LOVEITT & SONS (at Coventry).

Coventry, Warwick.—Far Gosford-st., &c., freehold works, area 4,637 yds., p. 6,500
6, 7, and 9, Arden-st., f., w.r. 27*l.* 6s. 420
Jenner-st., freehold building site, area 286 yds. 151

February 25.—By BEALE & CAPPS.

Notting Hill.—53, St. Charles-sq., f., e.r. 80*l.* 1,250
128A, Lancaster-rd., u.t. 61 yrs., g.r. 10s., y.r. 65*l.* 900
Shepherd's Bush.—11, Richmond-rd., u.t. 61 yrs., g.r. 7*l.*, w.r. 72*l.* 16s. 440

By FASSETT & HANDLEY.

Stoke Newington.—78, Dynevor-rd., u.t. 72 yrs., g.r. 5*l.* 10s., y.r. 32*l.* 330

By MESSRS. LEAGE.

Dalston.—Montague-rd., i.g.r.'s 23*l.* 10s., u.t. 57 yrs. 450

By R. TIDEY & SON.

Islington.—16, 16a, and 18, Barnsbury-rd., f., w.r. 198*l.* 18s. 1,800
88, 90, and 92, Ockendon-rd., u.t. 38 yrs., g.r. 19. 10s., y.r. 122*l.* 1,325
De Beauvoir Town.—5, Balmes-rd., u.t. 22 yrs., g.r. 4*l.* 10s., y.r. 34*l.* 250
123, Tottenham-rd., u.t. 69 yrs., g.r. 7*l.* 10s., y.r. 36*l.* 365
150 and 152, Hertford-rd., u.t. 47 yrs., g.r. 26*l.* y.r. 64*l.* 445
De Beauvoir Town.—51, Mortimer-rd., u.t. 67½ yrs., g.r. 11*l.* 5s., y.r. 36*l.* 270
62, Downham-rd., u.t. 67½ yrs., g.r. 12*l.* 10s., y.r. 45*l.* 350
Acton.—34, Shakespeare-rd., f., y.r. 28*l.* 340

By DOUGLAS YOUNG & Co.

Enfield, Bush Hill Park.—20 to 24, Main-av., u.t. 86 yrs., g.r. 12*l.*, w.r. 104*l.* 660
40 to 47, Main-av., u.t. 85 yrs., g.r. 24*l.*, w.r. 176*l.* 16s. 1,040
2, 14, 18 to 24, 26 to 32, First-av., u.t. 85 yrs., g.r. 80*l.*, w.r. 535*l.* 15s. 4,205
53, Main-av., u.t. 86 yrs., g.r. 5*l.*, y.r. 32*l.* 10s. 385
2 to 22 (even), Fifth-av., g.r. 27*l.* 10s., w.r. 191*l.* 15s. 1,050
81, Fifth-av. (S), u.t. 85 yrs., g.r. 6*l.*, y.r. 40*l.* 340
1, 2, 4 to 10, 13 to 16, 18, 19, and 20, Second-av., u.t. 86 yrs., g.r. 72*l.*, w.r. 444*l.* 8s. 3,660

By GEORGE LOVEITT & SONS (at Nuneaton).

Nuneaton, Warwick.—Church-st., The Limes, f., p. 800
1 and 2, Burgage Walk, f., w.r. 13*l.* 155
75 and 76, Abbey-st. (S), f., y.r. 38*l.* 655
72 and 73, Abbey-st., with four tenements in rear, f., w.r. 55*l.* 18s. 550
22 to 25, Mead-st., f., w.r. 46*l.* 16s. 595
Manor Court-rd., plot of building land, f. 179
Bedworth, Warwick.—Hole-lane, plot of building land, f. 170

By THOS. BEEVERS (at Whitwood Mere.)

Whitwood Mere, Yorks.—The Castleford Pottery, area 6,473 yds., f., with plant, fittings, &c. .. 2,400
Nine freehold cottages, w.r. 79*l.* 14s. 8d. 425
Glass Houghton, Yorks.—Two closes of land, 2 a. 2 r. 36 p., f. 140

February 26.—By CANE & Co.

Peckham.—61, Lusanne-rd., u.t. 66 yrs., g.r., 5*l.* 5s., e.r. 36*l.* 400
9, 11, 13, and 15, Moncrieff-st., u.t. 57 yrs., g.r. 18*l.*, q.r. 112*l.* 1,400

By CHESTERTON & SONS.

Southwark.—4, 5, and 6, Layton's-bldgs., f., y.r. 70*l.* 1,220

By C. RAWLEY CROSS & Co.

Acton.—8, Essex Park-villas, u.t. 74 yrs., g.r. 9*l.* 9s., e.r. 48*l.* 460

By FAREBROTHER, ELLIS, & Co.

Long Acre.—61, Endell-st., timber yard, &c., area 5,500 ft., f., y.r. 350*l.* 7,300
Kilburn.—43, High-rd. (S), u.t. 55½ yrs., g.r. 18*l.*, y.r. 170*l.* 1,600

By G. FUTVOYE FRANCIS.

Chelsea.—77 and 79, Beaufort-st. (S) and 1 and 2, Johnsons-cottages, u.t. 11½ yrs., g.r. 9*l.*, y.r. 117*l.* 345
Pimlico.—2, Charlwood-pl., u.t. 23 yrs., g.r. 8*l.* 10s., y.r. 65*l.* 430

By GARRETT, WHITE, & POLAND.

Soho.—Moor-st., The Cambridge p.-h., f.g.r. 140*l.*, reversion in 63 yrs. 3,730

By C. C. & T. MOORE.

Spitalfields.—133 and 135, Hanbury-st., u.t. 17½ yrs., g.r. 50*l.*, w.r. 119*l.* 12s. 150
Whitechapel.—158 to 170 (even), Old Montague-st., and 1 to 12, Eagle-pl., u.t. 31 yrs., g.r. 100*l.*, w.r. 546*l.* 405
20, 22, 24, and 26, Plumber's-row, and 5, 7, 7½, and 11, Yolford-st., u.t. 41 yrs., g.r. 84*l.*, w.r. 365*l.* 6s. 250

St. George's East.—61 to 75 (odd), Cable-st., u.t. 17½ yrs., g.r. 160*l.*, w.r. 520*l.* £1,030
Stepney.—16, Ford-sq., f., y.r 40*l.* 700
Bethnal Green.—112, Columbia-rd., u.t. 19 yrs, g.r. 13*l.* 13s., y.r. 78*l.* 4s. .....
Plaistow.—33 and 35, Kelland-rd., u.t. 62 yrs., g.r. 5*l.*, w.r. 37*l.* 1s. .....

By G. PRATT & MARSLAND.

Wandsworth.—20 and 24, Geraldine-rd., u.t. 77 yrs., g.r. 15*l.*, y.r. 72*l.* .....
Brixton.—127, Akerman-rd., u.t. 55 yrs., g.r. 5*l.*, y.r. 30*l.* 450
Streatham.—50, Conyers-rd., u.t. 78 yrs, g.r. 12*l.*, e.r. 60*l.* 200

By STIMSON & SONS.

Peckham.—Astbury-rd., the Astbury Arms p.-h., f., y.r. 85*l.* .....
Astbury-rd., freehold factory and land, y.r. 50*l.*; also 21, Astbury-rd., u.t. 70 yrs., g.r. 4*l.* 10s., y.r. 28*l.* 775
75, Brayards-rd. (S), u.t. 70 yrs., g.r. 5*l.*, y.r. 65*l.* 335
Brayards-rd, &c., l.g.r. 160*l.*, u.t 72 yrs., g.r. 79*l.* 3s. 10d. .....
35, Caulfield-rd., u.t. 72 yrs, g.r. 16s. 8d., y.r. 40*l.* 1,700
Camberwell.—Grove Hill-rd., f.g.r.'s 37*l.* 9s., reversion in 73 yrs. .....
Dulwich.—44, Wood-vale, u.t. 72 yrs., g.r. 6*l.*, y.r. 29*l.* 1,300
Maida Vale.—Blomfield-rd., i.g.r. 22*l.* 10s., u.t. 35¾ yrs., g.r. 16*l.* .....

By J. A. & W. THARP.

Pentonville.—2, Vernon-st., u.t. 16½ yrs., g.r. 5*l.*, y.r. 45*l.* 750
By W. & F. EVES (at Uxbridge).
Hillingdon, Middlesex.—3 to 6, Hall's-ter. (S.), f., y.r. 83*l.* .....
1 to 4, Norham-villas, f., w.r. 72*l.* 6s. .....
Nellgrove-rd., five p'ots of building land, f. .....
1 and 2, Ruby-villas, f., w.r. 16*l.* 18s. 1,525
By A. SAVILL & SON AND MASON & SONS (at Brigg).
Owmby, Lincs.—The Manor House Farm, 394 a. 1 r. 20 p., f., p. 560
By BATCHELAR & SON (at Croydon).
Croydon.—15 to 23 (odd), Barson-rd., f., w.r. 166*l.* 8s. .....
45, Tamworth-rd. (S.), f., y.r. 22*l.* .....
55 and 56, Tamworth-rd. (S.), f., w.r. 57*l.* 4s. ..
82, Church-st. (S.), f., y.r. 30*l.* 935
By EDWIN EVANS (at Clapham Junction).
South Lambeth.—18 and 20, Thorparch-rd., u.t. 81 yrs., g.r. 16*l.*, w.r. 88*l.* 8s. .....
Battersea.—55, Mossbury-rd., u.t. 83¾ yrs., g.r. 11*l.*, w.r. 62*l.* 8s. .....
69, Worfold-st, u.t. 84 yrs., g.r. 7*l.*, v.r. 50*l.* ..
42, Aliwal-rd., u.t. 81 yrs., g.r. 6*l.* 10s., w.r. 35*l.* 2s. 270
Wandsworth.—54 and 56, Bucharest-rd., u.t. 86 yrs, g.r. 11*l.*, w.r. 62*l.* 8s. .....
13, West Hill (S), u.t. 69 yrs., g.r. 7*l.*, y.r. 40*l.* 100
Chelsea.—188, Lots-rd., u.t. 75 yrs., g.r. 8*l.*, w.r. 61*l.* 2s. .....
Putney.—15 to 25 (odd), Mascotte-rd., u.t. 84 yrs., g.r. 25*l.*, w.r. 140*l.* 16s. .....
Tooting.—73 to 79 (odd), Graveney-rd., u.t. 75½ yrs., g.r. 16*l.* 16s., w.r. 91*l.* .....

February 27.—By FIELD & SONS.

Rotherhithe.—164 to 172 (even), Lower-rd. (S), y.r. 20?*l.*, also i.g.r. 4*l.*, u.t. 45½ yrs, g.r. 24*l.* 65 and 67, Plough-rd., u.t. 50½ yrs, g.r. 7*l.* 10s., w.r. 62*l.* 8s. 1,805
12 and 14, Old-rd., u.t. 37½ yrs., g.r. 6*l.* 2s., w.r. 54*l.* 12s. 555
28 and 30, Swan-la., f., w.r. 44*l.* 4s. 510

By VINCENT S. LEIGH.

Stoke Newington.—13 and 15, Lillian-st., u.t. 71 yrs, g.r. 12*l.*, w.r. 71*l.* 10s. 535
Hackney.—73 to 81 (odd), Morning-la., u.t. 70½ yrs., g.r. 2*l.*, w.r. 185*l.* 12s. 435
Harringay.—118, Effingham-rd., u.t. 87 yrs., g.r. 5*l.*, y.r. 28*l.* 1,090

By MAY & PHILPOT.

Brixton.—Mill-la, a block of freehold building land 250
12, Sudbourne-rd., u.t. 64 yrs., g.r. 7*l.* 7s., y.r. 42*l.* 1,230

By G. PEARCE & SONS.

Lambeth.—40, 42, and 44, Belvedere-rd., u.t. 21 yrs., g.r. 22*l.* 10s., y.r. 108*l.* 450
Haggerston.—62, Stean-st., u.t. 16 yrs., g.r. 3*l.*, w.r. 26*l.* 590
135

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beer-house; p.h. for public-house; o. for offices; s. for shops.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£ s. d.	
Hard Stocks	1 14 0	per 1,000 alongside, in river.
Rough Stocks and Grizzles.....	1 11 0	,, ,, ,,
Facing Stocks....	2 12 0	,, ,, ,,
Shippers	2 5 0	,, ,, ,,
Flettons	1 7 6	,, ,, ,,
Red Wire Cuts ..	1 12 0	,, at railway depôt
Best Fareham Red	3 12 0	,, ,, ,,
Best Red Pressed Ruabon Facing	5 0 0	,, ,, ,,

PRICES CURRENT (*Continued*).

BRICKS, &c.

	£ s. d.	
Best Blue Pressed Staffordshire ..	4 5 0	per 1,000 at railway depot.
Do. Bullnose	4 11 0	,, ,, ,,
Best Stourbridge Fire Bricks	4 8 0	,, ,, ,,
GLAZED BRICKS.		
Best White and Ivory Glazed Stretchers.....	13 0 0	,, ,, ,,
Headers	12 0 0	,, ,, ,,
Quoins, Bullnose, and Flats.....	17 0 0	,, ,, ,,
Double Stretchers	19 0 0	,, ,, ,,
Double Headers..	16 0 0	,, ,, ,,
One Side and two Ends.....	19 0 0	,, ,, ,,
Two Sides and one End	20 0 0	,, ,, ,,
Splays, Chamfered, Squints.....	20 0 0	,, ,, ,,
Best Dipped Salt Glazed Stretchers and Headers	12 0 0	,, ,, ,,
Quoins, Bullnose, and Flats.....	14 0 0	,, ,, ,,
Double Stretchers	15 0 0	,, ,, ,,
Double Headers..	14 0 0	,, ,, ,,
One Side and two Ends.....	15 0 0	,, ,, ,,
Two Sides and one End	15 0 0	,, ,, ,,
Splays Chamfered, Squints.....	14 0 0	,, ,, ,,
Second Quality White and Dipped Salt Glazed	2 0 0	,, less than best.
Thames and Pit Sand	7	o per yard, delivered.
Thames Ballast	6	o ,, ,,
Best Portland Cement	30	o per ton, delivered.
Best Ground Blue Lias Lime..	21	o ,, ,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 10s. 6d. per yard, delivered.
Stourbridge Fire-clay in sacks 27s. 6d. per ton at rly. dpt.

STONE.

	s. d.	
Ancaster in blocks	1 11	per ft. cube, deld. rly. depôt.
Bath ,, ...	1 7	,, ,,
Farleigh Down Bath ..	1 8	,, ,,
Beer in blocks	1 6	,, ,,
Grinshill ,, ...	1 10	,, ,,
Brown Portland in blocks	2 2	,, ,,
Darley Dale in blocks..	2 4	,, ,,
Red Corsehill ,,	2 5	,, ,,
Closeburn Red Freestone	2 0	,, ,,
Red Mansfield ,,	2 4	,, ,,

YORK STONE—*Robin Hood Quality.*

	s. d.	
Scappled random blocks	2 10	per ft. cube, deld. rly. depôt.
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3	per foot super. ,,
6 in. Rubbed two sides Ditto, Ditto	2 6	,, ,,
3 in. Sawn two sides slabs (random sizes)..	0 11½	,, ,,
2 in. to 2½ in. Sawn one side slabs (random sizes)	0 7½	,, ,,
1½ in. to 2 in. ditto, ditto	0 6	,, ,,

BEST HARL YORK—

Scappled random blocks	3 0	per ft. cube ,,
6 in. sawn two sides, landings to sizes (under 40 ft. sup.)	2 8	per ft. super. ,,
6 in. Rubbed two sides Ditto	—	,, ,,
3 in. sawn two sides slabs (random sizes)	1 2	,, ,,
2 in. self-faced random flags.....	0 5	,, ,,
Hopton Wood (Hard Bed) in blocks	2 3	per ft. cube.
,, ,, ,, 6 in. sawn both sides landings	2 7	per ft. super. deld. rly. depôt.
,, ,, ,, 3 in. do.	1 2½	,, ,,

SLATES.

in. in.	£ s. d.	
20×10 best blue Bangor..	13 2 6	per 1000 of 1200 at ry. dep.
20×12 ,, ,, ,, ..	13 17 6	,, ,,
20×10 best seconds ,,	12 15 0	,, ,,
20×12 ,, ,, ,,	13 10 0	,, ,,
16×8 best ,,	7 0 0	,, ,,
20×10 best blue Portmadoc ..	12 5 0	,, ,,
16×8 best blue Portmadoc	6 0 0	,, ,,
20×10 best Eureka unfading green....	15 0 0	,, ,,
20×12 ,, ,, ,,	16 10 0	,, ,,
18×10 ,, ,, ,,	11 10 0	,, ,,
16×8 ,, ,, ,,	8 7 6	,, ,,
20×10 permanent green	10 10 0	,, ,,
18×10 ,, ,,	9 0 0	,, ,,
16×8 ,, ,,	6 5 0	,, ,,

TILES.

	s. d.	
Best plain red roofing tiles..	42 0	per 1,000, at rly. depôt.
Hip and valley tiles....	3 7	per doz. ,, ,,
Best Broseley tiles	50 0	per 1,000 ,, ,,
Do. Ornamental Tiles 52	6	,, ,, ,,
Hip and valley tiles....	4 0	per doz. ,, ,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57 6	per 1,000 ,, ,,
Do. ornamental Do. 60	0	,, ,, ,,
Hip tiles	4 0	per doz. ,, ,,
Valley tiles.....	3 0	,, ,, ,,
Best Red or Mottled Staffordshire Do. (Peakes)	51 9	per 1,000 ,, ,,
Do. Ornamental Do. 54	6	,, ,, ,,
Hip tiles	4 1	per doz. ,, ,,
Valley tiles.....	3 8	,, ,, ,,
Best "Rosemary" brand plain tiles 48	0	per 1,000 ,, ,,
Do. Ornamental Do. 50	0	,, ,, ,,
Hip tiles	4 0	per doz. ,, ,,
Valley tiles.....	3 8	,, ,, ,,

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in and 11 in.....	15 10 0	16 10 0
Deals: best 3 by 9.....	14 10 0	15 10 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.....	11 10 0	12 10 0
Battens: best 2½ by 6 and 3 by 6 ..	0 10 0	less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best
Battens: seconds	0 10 0	,, ,, ,,
2 in. by 4 in. and 2 in. by 6 in. ..	9 0 0	9 10 0
2 in. by 4½ in. and 2 in. by 5 in. ..	8 10 0	9 10 0
Foreign Sawn Boards—		
1 in. and 1¼ in. by 7 in.	0 10 0	more than battens.
¾ in.	1 0 0	,,
Fir timber: Best middling Danzig or Memel (average specification	At per load of 50 ft. 4 10 0	5 0 0
Seconds	4 5 0	4 10 0
Small timber (8 in. to 10 in)	3 14 6	3 15 0
Small timber (6 in. to 8 in.).....	3 0 0	3 10 0
Swedish balks	2 15 0	3 0 0
Pitch-pine timber (30 ft. average)..	3 5 0	3 15 0
JOINERS' WOOD.	At per standard.	
White Sea: First yellow deals, 3 in. by 11 in.....	23 0 0	24 0 0
3 in. by 9 in.	21 0 0	22 10 0
Battens, 2½ in. and 3 in. by 7 in.	17 0 0	18 10 0
Second yellow deals, 3 in. by 11 in.	18 10 0	20 0 0
,, ,, 3 in. by 9 in.	17 10 0	19 0 0
Battens, 2½ in. and 3 in. by 7 in.	13 10 0	14 10 0
Third yellow deals, 3 in. by 11 in. and 9 in.	15 10 0	16 10 0
Battens, 2½ in. and 3 in. by 7 in.	11 10 0	12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21 0 0	22 10 0
Do. 3 in. by 9 in.....	18 0 0	19 10 0
Battens.....	13 10 0	15 0 0
Second yellow deals, 3 in. by 11 in.....	16 0 0	17 0 0
Do. 3 in. by 9 in.	14 10 0	16 0 0
Battens.....	11 10 0	12 10 0
Third yellow deals, 3 in. by 11 in.....	13 10 0	14 0 0
Do. 3 in. by 9 in.	13 0 0	14 0 0
Battens	10 0 0	11 0 0
White Sea and Petersburg:—		
First white deals, 3 in. by 11 in.	14 10 0	15 10 0
,, ,, 3 in. by 9 in.	13 10 0	14 10 0
Battens.....	11 0 0	12 0 0
Second white deals 3 in. by 11 in.	13 10 0	14 10 0
,, ,, ,, 3 in. by 9 in.	12 10 0	13 10 0
,, ,, ,, battens.....	9 10 0	10 10 0
Pitch-pine: deals	16 0 0	18 0 0
Under 2 in. thick extra	0 10 0	1 0 0
Yellow Pine—First, regular sizes ..	33 0 0	upwards.
Oddments	22 0 0	24 0 0
Seconds, regular sizes	24 10 0	26 10 0
Yellow Pine Oddments	20 0 0	22 0 0
Kauri Pine—Planks, per ft. cube..	0 3 6	0 4 6
Danzig and Stettin Oak Logs—		
Large, per ft. cube	0 2 6	0 3 6
Small ,, ,, ...	0 2 3	0 2 6
Wainscot Oak Logs, per ft. cube ..	0 5 0	0 5 6
Dry Wainscot Oak, per ft. sup. as inch	0 0 7	0 0 8
¾ in. do. do.	0 0 6½	- - -
Dry Mahogany—		
Honduras, Tabasco, per ft. sup. as inch	0 0 9	0 0 11
Selected, Figury, per ft. sup. as inch	0 1 6	0 2 0
Dry Walnut, American, per ft. sup. as inch	0 0 10	0 1 0
Teak, per load	16 10 0	20 0 0
American Whitewood Planks—		
Per ft. cube	0 4 0	- - -
Prepared Flooring—	Per square.	
1 in. by 7 in. yellow, planed and shot.....	0 13 6	0 17 6
1 in. by 7 in. yellow, planed and matched.....	0 14 0	0 18 0
1¼ in. by 7 in. yellow, planed and matched.....	0 16 0	1 1 6
1 in. by 7 in. white, planed and shot.....	0 11 6	0 13 6
1 in. by 7 in. white, planed and matched.....	0 12 0	0 14 0
1¼ in. by 7 in. white, planed and matched.....	0 14 6	0 16 6
¾ in. by 7 inch yellow matched and beaded or V-jointed boards	0 11 0	0 13 6
1 in. by 7 in. do. do. do.	0 14 0	0 18 0
¾ in. by 7 in. white do. do.	0 10 0	0 12 6
1 in. by 7 in. do. do. do.	0 11 6	0 13 6

6-in. at 6d. to 9d. per square less than 7-in.

JOISTS, GIRDERS, &c.

	In London, or delivered. £ s. d.	Railway Vans, per ton. £ s. d.
Rolled Steel Joists, ordinary sections	6 5 0	7 5 0
Compound Girders ,, ,,	8 2 6	9 5 0
Angles, Tees and Channels, ordinary sections	7 17 6	8 17 6
Flitch Plates	8 5 0	8 15 0
Cast Iron Columns and Stanchions, including ordinary patterns	7 2 6	8 5 6

METALS.

	Per ton, in London £ s. d.	£ s. d.
IRON—		
Common Bars.....	7 15 0	8 5 0
Staffordshire Crown Bars, good merchant quality	8 5 0	8 15 0
Staffordshire "Marked Bars" ..	10 10 0	- - -
Mild Steel Bars	9 0 0	9 10 0
Hoop Iron, basis price.....	9 5 0	9 10 0
,, ,, galvanised.....	16 0 0	- - -

(* And upwards, according to size and gauge.)

Sheet Iron, Black.—		
Ordinary sizes to 20 g.	10 0 0	- - -
,, ,, to 24 g.	11 0 0	- - -
,, ,, to 26 g.	12 10 0	- - -
Sheet Iron, Galvanised, flat, ordinary quality—		
Ordinary sizes 6 ft. by 2 ft. to 3 ft. to 20 g.....	12 15 0	- - -
,, ,, 22 g. and 24 g.	13 5 0	- - -
,, ,, 26 g.....	14 5 0	- - -

[*See also page 265.*

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITION.

Nature of Work.	By whom Required.	Premiums.	Designs to be delivered
National Memorial, Tasmania	The Committee	20 Guineas	No date

CONTRACTS.

Nature of Work or Materials.	By whom Advertised.	Forms of Tender, &c., supplied by	Tenders to be delivered
*Refuse Destructor, &c., Rockingham-road	Kettering U.DC.	J. Bond, Market-street, Kettering	Mar. 9
Alterations to Church, Granard, Ireland	Ven. Archdeacon Smyth	W. H. Byrne & Son, Architects, 24, Suffolk-street, Dublin	Mar. 10
*Stoneware Pipes	Edmonton U.D.C.	Engineer to the Council, Town Hall, Edmonton	do.
*Oak Fencing at Chipping Ongar	Hackney Union	W. A. Finch, 76, Finsbury-pavement, E.C.	Mar. 11
Additions to Schools, Fulneck, Yorks	.....	C. S. Nelson, Architect, 15, Park-row, Leeds	do.
Houses, &c., Turriff, N.B.	Trustees of the late Mr. J. Kirk	J. Duncan & Son, Architects, Turriff	do.
Rebuilding the Bay House Inn, Kilham, Yorks	Dover Town Council	D. Petch, Architect, Huntriss-row, Scarborough	do.
Street Improvement Works, Avenue-road	Higher Bebington U.D.C.	H. E. Stilgoe, Civil Engineer, Maison Dieu House, Dover	do.
Additions to Victoria Hall	Bexley U.D.C.	Deacon & Horsburgh, Architects, North John-street, Liverpool	do.
Stoneware Pipes, &c.	.....	W. T. Howse, Surveyor, Public Hall, Bexley	do.
Works at St. Nicholas Church, Whitehaven	Bocking (Essex) School Board	J. S. Moffat, Architect, Whitehaven	do.
Alterations to Schools	Bingham (Notts) R.D.C.	J. W. Clark, Architect, Coggeshall, Essex	do.
Road Materials, &c. (Twelve Months)	Bournemouth Town Council	R. H. Beaumont, Market-street, Bingham	do.
Pavilion, &c., King's Park	Bangor School Board	F. W. Lacey, Civil Engineer, Town Hall, Bournemouth	do.
Schools, Hirael	Cymmer Workmen's Club Com.	W. G. Williams, Architect, 220, High-street, Bangor	do.
Additions to Club and Institute	Tenterden R.D.C.	G. Williams, 20, High-street, Cymmer	do.
Road Metal, &c.	Oundle R.D.C.	W. L. C. Turner, Surveyor, Tenterden	do.
Isolation Hospital	Kensington Guardians	Gotch & Saunders, Architects, Kettering	do.
*Alterations of Boiler and Engine Houses, &c.	Belfast Corporation	Ernest Flint, Architect, 80, Coleman-street, E.C.	Mar. 12
Fire Station, Ballymacarrett	.....	Young & Mackenzie, Architects, Belfast	do.
Wesleyan School, Additions, &c., Hunwick, Co. Durham	Hinckley (Leics) U.D.C.	G. Wright, Wesleyan Schools, Hunwick	do.
Surveyors' Materials	Plymouth Corporation	F. C. Cook, Engineer, Council Offices, Hinckley	do.
Portland Cement	North Staffordshire Jnt. Hosp. Brd.	J. Paton, Borough Surveyor, Town Hall, Plymouth	do.
Additions to Hospital, Hanley (Staffs)	Managers, West London School Dis.	E. Jones, Architect, 10, Albion-street, Hanley	do.
Schools, Ashford, Middlesex	Portsmouth Corporation	F. W. Roper, Architect, 9, Adam-street, Adelphi, W.C.	do.
Portland Cement (One Year)	Northmbrlnd. Mine-Workers' Assoc.	J. Paton, Borough Engineer, Portsmouth	do.
Ten Cottages, Prudhoe	Earsdon (Newcastle) U.D.C.	J. Wilson, 21, Watergate, Cambois, Blyth	Mar. 13
Road Metal, Whinstone, &c.	Manchester Corporation	J. R. Macmillen, Council Offices, Shiremoor	do.
Stores and Shed, Tame-street, Ancoates	.....	A. J. Murgatroyd, Architect, 23, Strutt-street, Manchester	do.
Bridge Works, Catter, near Kirbymoorside, Yorks	Alexandra Building Club	W. G. Bryning, County Surveyor, Northallerton	do.
Fifteen Houses, New Tredegar, Mon.	Staines U.D.C.	G. Kenshole, Architect, Station-road, Bargoed	do.
Granite Flints	Rotherham R.D.C.	E. J. Barrett, Civil Engineer, Town Hall, Staines	do.
Sewerage Works, Wentworth	Rhondda U.D.C.	J. Platts, Engineer, High-street, Rotherham	do.
Road Improvement Works, Pleasant-st., Pentre, Glam	.....	W. J. Jones, Engineer, Council Offices, Pentre, Glam.	do.
House, Hand Carr, Luddenden Foot, Halifax	Chelmsford R.D.C.	T. H. Tyson, Architect, Fountain-street, Halifax	do.
Road Metal, &c.	Mr. W. Graham	H. G. Warne, Surveyor, Market-road, Chelmsford	do.
Two Villas, Lisburn-street, Alnwick	.....	Mr. T. Wilson, Architect, Alnwick	Mar. 14
Vicarage House, Cray, Breconshire	Padiham (Lancs) U.D.C.	Rev. Ogden Davies, Forest Cottage, Cray, Brecon	do.
Road Metal, &c.	Droitwich Corporation	J. Gregson, Surveyor, Council Offices, Padiham	do.
Granite Road Metal, &c.	Haslingden (Lancs) Town Council	H. Hulse, Borough Surveyor, Droitwich	do.
Granite Road Metal, &c.	Mr. N. S. Maskelyne	J. T. Green, Borough Surveyor, Town Hall, Haslingden	do.
Additions to Restrop Farm, Purton	Eastbourne Town Council	R. J. Beswick, Surveyor, 35, Regent-street, Swindon	do.
Cement, &c.	Coatbridge (N.B.) Town Council	J. Rowe, Civil Engineer, Town Hall, Eastbourne	do.
Public Library, &c.	Bridlington Town Council	W. Lyle, 16, St. John-street, Coatbridge	do.
Furnace and Shed, Portland-place Depot	Mr. G. B. Morgan	Borough Surveyor, Town Hall, Bridlington	do.
Additions to Telegraph Inn, Gt. Orme's Head, Llandudno	Stafford R.D.C.	H. Milling, Civil Engineer, Clarence Hotel, Llandudno	do.
Slag Road Metal, &c.	Commissioners	W. Morgan, 4, Martin-street, Stafford	do.
Extension of Ford Quay, Lancaster	Walsall Corporation	D. & C. Stevenson, Civil Engineers, Edinburgh	do.
Sewerage Works, Brockhurst	.....	Borough Surveyor, Bridge-street, Walsall	do.
*Rebuilding Bolton Hall, Leyburn, Yorks	.....	C. Hodgson Fowler, The College, Durham	Mar. 16
Additions to Schools, Lumb, Manchester	Gelligaer R.D.C.	A. Brocklehurst, Architect, Waterfoot	do.
Boundary and Retaining Walls, Pontlottyn	Bristol Corporation	J. Jones, Hengoed, via Cardiff	do.
Timber Wharf, Portishead Dock	.....	W. W. Squire, Engineer, Cumberland-road, Bristol	do.
Schools, Monks-lane, Nantwich	Gorton (Lancs) U.D.C.	R. Matthews, Architect, Nantwich	do.
Bridge Works, Hyde-road	East Ashford Guardians	C. J. Lomax, Civil Engineer, 37, Cross-street, Manchester	do.
Additions to Workhouse, Willesborough	Hants County Council	T. H. Wilde, Architect, Albemarle-road, Willesborough	do.
Additions to Police Station, Lyndhurst	Abergavenny R.D.C.	W. J. Taylor, County Surveyor, The Castle, Winchester	do.
Broken Stone, &c.	Eccles (Lancs) Corporation	J. Gill, Surveyor, 4, Brecon-road, Abergavenny	do.
Road Materials	Lichfield R.D.C.	T. S. Picton, Civil Engineer, Town Hall, Eccles	do.
Granite Road Metal, &c.	Bromley (Kent) U.D.C.	J. Derry, Council Offices, Lichfield	do.
Drain Pipes, &c.	Manchester Corporation	F. H. Norman, District Offices, Bromley	do.
Baths, High-street, Chorlton-cum-Medlock	Tutbury R.D.C.	City Architect, Town Hall, Manchester	do.
Materials, Road Metal, &c.	.....	H. S. Tebbitt, Surveyor, 320, Shobnall-street, Burton-on-Trent	do.
Schools, Shipdham, near Thetford	Maidstone U.D.C.	Rev. A. J. Fitton, Everleigh, Shipdham	do.
Road Materials, &c.	.....	Mr. T. F. Bunting, Borough Surveyor, Fair Meadow, Maidstone	do.
Sanatorium, Winsley, near Bath	Derby Corporation	T. B. Silcock, Architect, 47, Milson-street, Bath	do.
Pipelaying, &c.	Caerphilly (Wales) U.D.C.	T. & C. Hawksley, Civil Engineers, 30, Great George-street, S.W.	do.
Limestone, &c.	Coalville (Leics) U.D.C.	A. O. Harpur, Surveyor, Council Offices, Caerphilly	Mar. 17
Pumping Station	Fulwood (Lancs) U.D.C.	J. B. Everard, Engineer, 6, Millstone-lane, Leicester	do.
Sewer, &c.	Killarney U.D.C.	E. H. Naylor, Surveyor, Fulwood, Preston	do.
Water Supply Works	Brentford Union	J. O'Leary, District Lunatic Asylum, Killarney	Mar. 18
*Demolition of Old Workhouse Premises	Reading Corporation	The Clerk, Union Offices, Isleworth, W.	do.
Surveyors' Materials, &c.	St. Mary Islington Guardians	J. Bowen, Civil Engineer, Town Hall, Reading	do.
*Water Softener, &c., at Infirmary, Highgate Hill, N.	Commissioners of H.M. Works, &c.	Jas. Enright, 47, Victoria-street, S.W.	Mar. 19
*Enlargement of Head Post Office, Bournemouth	Horsham R.D.C.	H.M. Office of Works, &c. Storey's Gate, S.W.	Mar. 20
*Earthenware and Cast-iron Pipes, &c., Billingshurst	Manchester Corporation	V. Graham, 5, Queen Anne's Gate, Westminster, S.W.	Mar. 21
Underground Lavatory, Corporation & Miller Streets.	Mr. W. Lee	City Surveyor, Town Hall, Manchester	do.
House, Ballinlough-road, Cork	Corporation of London	D. J. Oakley, Architect, 1, Charlotte Quay, Cork	Mar. 22
*Crematorium at City of London Cemetery	Strood R.D.C.	Engineer to Corporation, Guildhall, E.C.	Mar. 24
*Infectious Diseases Hospital, Cobham, nr. Gravesend	Hove Corporation	E. Godfrey Page, 4 and 5, Warwick-court, Gray's Inn, W.C	Mar. 25
*Dwarf Wall, Iron Fence and Gates	Weymouth R.D.C.	Borough Surveyor, Town Hall, Hove	do.
*Main Sewerage Works, Wyke Regis	Chingford U.D.C.	Lemon & Blizzard, Castle-lane, Southampton	Mar. 31
*Making-up, &c., Buxton & Frederica Rds., The Drive, &c.	Atherstone R.D.C.	Council's Surveyor, 14, The Parade, Chingford	April 4
Stoneware Pipes, &c., Chapel End	Cockermouth R.D.C.	H. J. Coleby, Engineer, 116, Long-street, Atherstone	No date.
Additions to Isolation Hospital	.....	J. B. Wilson, Civil Engineer, Cockermouth	do.
Two Villas, Maldon-road, Colchester	.....	E. R. Beckwith, Architect, St. John's-street, Colchester	do.
House, Cefn Coed Farm, Pen-y-lau, near Cardiff	.....	J. J. Swatwell, Architect, Dock-street, Newport, Mon.	do.
House, Heywood, Stalybridge	Primitive Methodists	Burton & Percival, Archts., 150A, Stamford-st., Ashton-under-Lyne.	do.
Schools, Wallsend	Bridge of Weir Gas Co., Ltd.	T. E. Davidson, Architect, 32, Clayton-st. West, Newcastle-on-Tyne.	do.
Gasholder Tank, Kilmalcolm, N.B.	Barrow "News and Mail," Ltd.	P. Woodrow, Secretary, Woodholm, Kilmacolm	do.
Printing Works and Offices	Broomhill, Northumberland Sch. Bd.	E. M. Young, Architect, 90, Duke-steet, Barrow	do.
Schools, &c.		J. W. Douglas, Architect, 40, Bondgate Without, Alnwick	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Three Junior Surveyors	London County Council	2l. 10s.	Mar. 12
*Surveyor and Waterworks Engineer	Leek U.D.C.	225	do.
*Temporary Architectural Assistant	Woolwich Borough Council	4l. per week	Mar. 20

PRICES CURRENT (*Continued*).

METALS.

	Per ton in London. £ s. d.	£ s. d.
Sheet Iron, Galvanised, flat, best quality:—		
Ordinary sizes to 20 g.	16 0 0	- - -
" " 22 g. and 24 g.	16 10 0	- - -
" " 26 g.	18 0 0	- - -
Galvanised Corrugated Sheets:—		
Ordinary sizes, 6 ft. to 8 ft. 20 g.	12 15 0	- - -
" " 22 g. and 24 g.	13 5 0	- - -
" " 26 g.	14 5 0	- - -
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker ..	12 0 0	- - -
" " 22 g, and 24 g.	13 0 0	- - -
" " 26 g.	14 5 0	- - -
Cut nails, 3 in. to 6 in.	9 5 0	9 15 0
(Under 3 in. usual trade extras.)		

LEAD, &c.

	Per ton, in London. £ s. d.	£ s. d.
LEAD—Sheet, English, 3 lbs. & up.	15 5 0	- - -
Pipe in coils	15 5 0	- - -
Soil pipe	17 15 0	- - -
Compo Pipe	17 15 0	- - -
ZINC—Sheet—		
Vieille Montagne ton	25 10 0	- - -
Silesian	25 5 0	- - -
COPPER—		
Strong Sheet per lb.	0 0 10½	- - -
Thin "	0 0 11½	- - -
Copper nails "	0 0 11½	- - -
BRASS—		
Strong Sheet "	0 0 10	- -
Thin "	0 0 11	- -
TIN—English Ingots "	0 1 4½	- - -
SOLDER—Plumbers' "	0 0 6½	- - -
Tinmen's "	0 0 8½	- - -
Blowpipe "	0 0 9½	- - -

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	2½d. per ft. delivered.
" fourths	1¾d. " "
21 oz. thirds	3¼d. " "
" fourths	2½d. " "
26 oz. thirds	4d. " "
" fourths	3¼d. " "
32 oz. thirds	5d. " "
" fourths	4¼d. " "
Fluted sheet, 15 oz.	3d. " "
" 21 oz.	4d. " "
½ Hartley's Rolled Plate	1¾d. " "
⅝ " " "	2d. " "
¾ " " "	2¼d. " "

OILS, &c.

		£ s. d.
Raw Linseed Oil in pipes or barrels..	per gallon	0 2 4
" " " in drums	"	0 2 8
Boiled " " in pipes or barrels..	"	0 2 6
" " " in drums	"	0 2 10
Turpentine, in barrels	"	0 3 8
" in drums	"	0 3 10
Genuine Ground English White Lead	per ton	20 10 0
Red Lead, Dry	"	20 0 0
Best Linseed Oil Putty	per cwt.	0 8 0
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 6
Superfine Hard-drying Oak, for Seats of Churches	0 14 0
Fine Elastic Carriage	0 12 6
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 16 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flatting Varnish	0 18 0
White Copal Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 6
Berlin Black	0 16 0
Knotting	0 10 0
French and Brush Polish	0 10 0

TO CORRESPONDENTS.

J. W. B.—W. H. (Amounts should have been stated). L. & H. (Too late; next week).

NOTE.—The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays*. N.B.—We cannot publish Tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under 100*l.*, unless in some exceptional cases and for special reasons.]

* Denotes *accepted*. † Denotes *provisionally accepted*.

BEDFONT.—For alterations and additions to Newhaven, Bedfont, for Mr. Nat Gould. Mr. W. A. Davies, architect and surveyor, Town Hall Chambers, High-street, Hounslow:—

W. Irwin	£650	W. Wisdom, Isleworth*	£485
T. Hiscock	540		

BEXHILL (Sussex).—For extensions to electric light works, for the Town Council. Mr. Geo. Ball, C.E., Town Hall, Bexhill. Quantities by Mr. J. T. Halliday:—

F. G. Minter	£2,772	Peerless, Dennis, & Co.	£2,548
H. E. Cruttenden ..	2,694		
T. W. Dexter	2,677	W. H. Bailey, Bexhill†	2,475
Jarvis & Son	2,598		

BUCKLEY (Flintshire).—For erecting a free library. Messrs. J. H. Davies & Sons, architects, 14, Newgate-street, Chester:—

	Contract No. 1.	Contract No. 2.
Davies Bros.	£1,481 0 0	£30 7 6
R. Williams	1,389 12 0	26 17 0
Parker Bros.	1,377 0 0	30 0 0
Pritchard	1,335 0 0	30 0 0
P. Edwards	1,320 0 0	60 0 0
R. Davies	1,320 0 0	—
Wright & Sons	1,285 0 0	25 0 0
R. Peters, Buckley*	1,220 0 0	55 0 0
Kitchen	1,150 0 0	25 15 0

CROYDON.—For the erection of a private residence at Chatsworth-road. Mr. F. Windsor, architect, Bank-building, 1, High-street, Croydon:—

E. J. Saunders	£1,320	W. Potter	£1,149
D. Waller	1,175	J. Horrocks*	1,121

CROYDON.—For billiard-room and additions to Pampisford, Pampisford-road, South Croydon, for Mr. G. Lister. Messrs Money Marsland, & Pratt, architects, 68, Great Tower-street, E.C.:—

T. Warman	£1,159	Worsfold & Son	£896
R. A. Jewel	979	J. Pratt‡	785

‡ Accepted subject to modifications.

EARLSTOWN (Lancs.).—For laying water mains, for the Newton-in-Makerfield Urban District Council. Mr. R. T. Surtees, engineer. Quantities by Messrs. Read & Waring, engineers:—

Bennie & Thompson, Warrington* .. £1,647 16 10

ENNISCORTHY (Ireland).—For the execution of sewerage works, Ferns, for the Rural District Council. Mr. J. W. Gardiner, C.E., Dublin:—

M. Fitzpatrick	£2,050 0 0!	A. B. Breslan	£790 0 0
George Dixon	1 783 1 6	William Baird, Dublin*	785 0 0!
Wm. Goldie ..	993 3 6		

KEIGHLEY.—For paving, &c., four streets near Victoria-avenue, for the Corporation. Mr. W. H. Hopkinson, C.E., Town Hall, Keighley:—

T. E. Sugden, Keighley* £864 11 1

LIVERPOOL.—For new temporary school (accommodation, 554), Broad Green-road, for Liverpool School Board. Mr. Thomas Brown, Architect, Offices of the Board:—

Paterson & Co.	£2,737 0	James Readdie	£2,440 0
Morton & Co., Ltd.	2,565 0	Humphreys, Ltd.	2,368 0
Hawkins & Co.	2,548 10	Woods & Son	2,275 0
Tomkinson & Co.	2,515 0	Blakeley & Co.	1,994 0
George Johnson	2,480 0	Whitnall & Gregory*	1,877 0

LONDON.—For constructing a 12-in. pipe sewer in South-place-mews, Finsbury, for the Corporation:—

A. Woodhouse* £132 10

LONDON.—For re-gravelling and rolling paths in Finsbury-circus-garden, for the Corporation:—

Mowlem & Co.* £180

LONDON.—For the reconstruction at a lower level of about 1,260 ft. of the Battle Bridge sewer in Union-street, Southwark, between Gravel-lane and Southwark Bridge-road, for the London County Council:—

J. Dickson	£7,820 8 9	J. & T. Bians	£6,615 7 0
W. Kennedy	7,216 8 2	Johnson & Woodham & Sons	6,975 16 2
		Langley, Leicester*	5,894 12 6

LONDON.—For the erection of a new police station at Muswell Hill. Mr. J. Dixon Butler, Surveyor to the Metropolitan Police, New Scotland Yard. Quantities by Messrs. Thurgood, Son, & Chidgey, Charing Cross Chambers, Duke-street, Adelphi:—

Voller & Goodfellow	£9,660	Ansell	£8,905
Lascelles & Co.	9,186	Holloway Bros.	8,897
Higgs & Hill	9,140	Thompson & Beveridge	8,796
Allen & Sons	9,121	Lathey Bros.	8,737
J. Darvill	9,120	J. Pocock	8,629
F. & H. F. Higgs	9,033	Willmott & Sons	8,279
Grover & Sons	8,964		

ST. ASAPH.—For new infirmary at the St. Asaph Union Workhouse. Mr. James Hughes, architect, Denbigh:—

R. Jones	£5,400	E. Williams	£4,470
G. H. Marshall	5,349	W. H. Thomas	4,430
T. Jones	4,990	Evans & Sons, Old Colwyn*	4,397
R. Williams	4,907	Jones & Prichard	4,291
Griffiths & Son	4,899		
P. Edwards	4,650		

Architect's estimate, £4,462.

STOKENCHURCH.—For new residence, Stokenchurch, for Mr. R. D. Cruikshank. Mr. Arthur Vernon, P.S.I., architect, 29, Cockspur-street, London, S.W., and High Wycombe:—

G. Syned	£1,365 10	H. Harris*	£1,088 10
W. H. Siarey	1,167 0		

THORPE.—For the construction of sewers and sewage disposal works at Thorpe. Mr. R. E. W. Berrington, M.Inst.C.E., Wolverhampton, and 28, Victoria-street, S.W.:—

Jones Bros.	£4,294	Green & Co.	£3,228
W. H. Reading	4,036	Morley	3,193
James Cooper	3,790	Sprakes & Sons	3,148
Robert Snell	3,785	James Owens	3,135
Graham & Sons	3,529	Braithwaite & Co., King-st., Leeds*	2,906
W. R. Unwin	3,368		

WALTHAMSTOW.—For making up a number of private streets. Mr. G. W. Holmes, A.M.Inst.C.E., Engineer:—

	Shernhall-street.	Brighton-avenue.	Camden-road.	Low Hall-lane.	Cassiobury-road.	Salop-road (part of).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Peters & Co.	1,080 10 10	165 14 2	113 13 2	225 6 8	585 18 3	319 7 7
Griffiths & Co.	1,242 9 0	138 11 8	95 8 11	248 5 2	625 15 9	322 12 10
A. W. Porter	—	110 0 0*	72 10 0*	220 0 0	—	—
Grounds & Newton	—	228 14 0	159 3 0	—	655 13 0	427 11 0
G. Porter	1,071 17 0	180 11 0	123 0 0	215 18 0	551 0 0	340 13 0
G. Wilson	939 0 0*	153 8 9	91 2 6	187 3 9*	499 19 0*	279 9 0*
W. Manders	980 0 0	176 0 0	119 0 0	227 0 0	507 0 0	325 0 0
G. Bell	1,179 0 0	185 0 0	137 0 0	239 0 0	619 0 0	369 0 0
Surveyor	—	—	—	250 0 0	—	—

LONDON SCHOOL BOARD.—PLUMBERS', PAINTERS', AND GLAZIER'S GOODS.—For the supply of plumbers', painters', and glaziers' goods on running contracts. The tenders have been submitted on printed schedules containing 333 items:—

	1 to 78.	79 to 140.	141 to 162.	163 to 233.	234 to 281	282 to 298.	299 to 333.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bowley & Son	11 9 3	—	—	—	—	—	—
Farmiloe & Sons, Ltd.*	11 5 5	10 2 3	0 9 3	19 14 0	—	—	—
Nicholls & Clarke, Ltd.*	11 2 9	—	—	—	20 0 8	18 2 1	4 17 10
H. E. Kershaw	10 7 10	—	—	—	—	—	—
Davis Bros. Ltd.	10 3 3	—	—	—	—	—	—
Quick & Co., Ltd.	9 12 0	—	—	—	—	—	—
Middleton Bros.	9 6 5	—	—	—	—	—	—
Blundell, Spence, & Co., Ltd.	9 3 3	—	—	—	—	—	—
T. & W. Farmiloe, Ltd.*	9 0 0	9 15 4	0 7 11	19 13 0	26 8 0	16 0 9	6 3 6
The Falcon Brass Works, Ltd.	—	—	—	—	21 10 6	—	—
The Farringdon Works and H. Pontifex & Sons, Ltd.	—	—	—	—	21 0 0	—	—
Warner & Sons, Ltd.	—	—	—	—	20 15 6	—	—

[See also next page.

WARGRAVE (Berks).—For the execution of sewerage works for the Wokingham Rural District Council. Messrs. Hassard & Tyrrell, engineers, 1, Victoria-street, S.W. :—

Free & Son ..	£5,603	12	1
Landscape Gardening Co...	4,406	4	5
A. G. Osenton	3,664	6	4
Collier & Catley	3,593	0	0
H. Hinkins ..	3,496	16	0
McCarthy E. Fitt.....	3,489	0	0
Jos. Jackson..	£3,415	5	8
G. G. Rayner	3,257	0	0
M. S. Kitteringham	3,216	6	8
H. Hill	3,160	0	0
Stree ers & Co.	3,056	0	0
S. Wood, Bristol*	3,029	19	8

WITLEY.—For proposed erection of a pair of cottages at Nodding's Farm, Witley, Surrey, for Mr. G. H. Pinckard. Mr. A. H. Butterworth, architect. Quantities supplied by Mr. H. Gray Robins :—

Mitchell	£998	Milton	£828
Ashdown	948	Haslemere Builders, Ltd.*	760
Bunning	890		

YORK.—For the erection of an asylum for lunatics. Water Fulford, for the Visiting Committee. Mr. A. Creer, architect, Guildhall, York :—

Longden & Son, Nesspend, Sheffield*.. £90,453 9 9

LONDON SCHOOL BOARD TENDERS.

AT the last meeting of the London School Board the Works Committee submitted the following lists of tenders. Mr. T. J. Bailey is the Board's architect :—

* *Recommended for acceptance.*

CORMONT-ROAD.—School for mentally defective children. Three classrooms of twenty each :—

Smith & Sons, Ltd.	£3,452	Johnson & Co., Ltd.	£2,916
Holliday & Greenwood, Ltd.	3,353	E. Triggs.....	2,910
F. & H. F. Higgs ..	3,254	J. & C. Bowyer	2,887
Holloway Bros. (London), Ltd. ..	3,137	Mitchell & Son	2,865
Akers & Co.....	3,129	T. D. Leng	2,830
Smith & Son	3,093	Garrett & Son.....	2,817
Lathey Bros.	3,063	Marsland & Sons ..	2,803
W. Downs	2,982	Rice & Son	2,799
		Bulled & Co.*.....	2,795

KINGSGATE-ROAD.—Providing and fixing low-pressure hot-water apparatus, including channels, painting pipes, &c. :—

G. Davis	£546	0	0
Dougill & Co., Ltd.	532	14	5
Cannon & Sons	499	0	0
J. & F. May ..	467	0	0
Wontner-Smith, Gray, & Co...	439	14	0
G. & E. Bradley	£403	0	0
Duffield & Sons	398	0	0
Wippell Bros. & Row	390	0	0
Harlow & Son, Macclesfield*.	372	0	0

NETLEY-STREET.—Improvements—Providing halls and teachers' rooms for all departments ; extending girls' playground on roof ; converting present teachers' rooms into cloakrooms, &c. ; providing new exit from babies' room, and enclosing, draining, and tar-paving the additional land. Accommodation unaltered :—

Simpson & Son ..	£4,764	0	
C. Cox	4,641	0	
Miskin & Sons ..	4,617	0	
Johnson & Co. ..	4,600	13	
Dearing & Son ..	4,548	6	
Unsigned.....	4,530	0	
Grover & Son....	4,422	0	
Lawrance & Sons	£4,232	0	
McCormick & Sons	4,108	0	
King & Son	4,027	0	
E. Triggs	3,945	0	
Treasure & Son..	3,855	0	
Wall & Co.*	3,760	0	

B. NOWELL & CO.
STONE MERCHANTS & CONTRACTORS.
Chief Office.—*Warwick Road, KENSINGTON.*
Norway, Guernsey, and Leicestershire Granite, Kerb, Pitching, and Yorkshire Stone.
ESTIMATES GIVEN FOR EVERY DESCRIPTION OF ROAD MAKING.

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PUBLISHER'S NOTICES.

THE INDEX (with TITLE-PAGE) for VOLUME LXXXIII. (July to December, 1902) was given as a supplement with the number for January 10th.

CLOTH CASES for Binding the Numbers are now ready, price 2s. 6d. each ; also

READING CASES (Cloth), with Strings, price 9d. each.

THE EIGHTY-THIRD VOLUME of "The Builder" (bound) price Twelve Shillings and Sixpence, is NOW READY.

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*** Stamps *must not* be sent, but all sums should be remitted by Postal Orders, payable to J. MORGAN, and addressed to the Publisher of "THE BUILDER," Catherine-street, W.C.

Advertisements for the current week's issue are received up to THREE o'clock p.m. on THURSDAY, but "Classification" is impossible in the case of any which may reach the Office after HALF-PAST ONE p.m. on that day. Those intended for the Outside Wrapper should be in by TWELVE noon on WEDNESDAY.

ALTERATIONS IN STANDING ADVERTISEMENTS or ORDERS TO DISCONTINUE same must reach the Office before TEN o'clock on WEDNESDAY MORNING.

The Publisher cannot be responsible for DRAWINGS, TESTIMONIALS, &c. left at the Office in reply to advertisements, and strongly recommends that of the latter COPIES ONLY should be sent.

PERSONS Advertising in "The Builder" may have *Replies addressed to the Office*, Catherine-street, Covent Garden, W.C. *free of charge*. Letters will be forwarded if addressed envelopes are sent, together with sufficient stamps to cover the postage. Unused stamps are returned to advertisers the week after publication.

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HIGH-CLASS JOINERY,
LASCELLES' CONCRETE.
Architects' Designs are carried out with the greatest care.
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WOODEN BUILDINGS,
Bank, Office, & Shop Fittings.
CHURCH BENCHES & PULPITS.
ESTIMATES GIVEN ON APPLICATION.

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BATH.
FOR ALL THE PROVED KINDS OF
BATH STONE
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The Ham Hill and Doulting Stone Co.
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Chief Office :—Norton, Stoke-under-Ham, Somerset.
London Agent :—Mr. E. A. Williams, 16, Craven-street, Strand.

Asphalte.—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 42, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds and milk-rooms, granaries, tun-rooms, and terraces. Asphalte Contractors to the Forth Bridge Co.

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ACID-RESISTING ASPHALTE.
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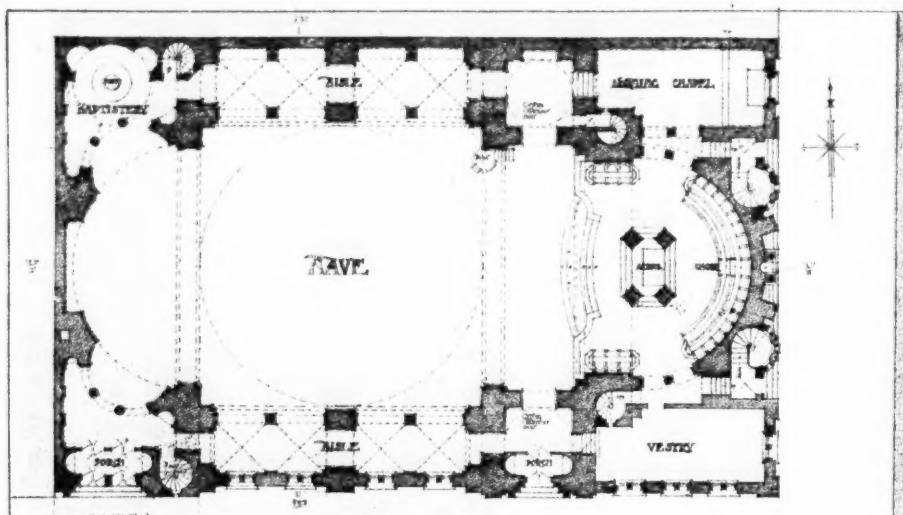
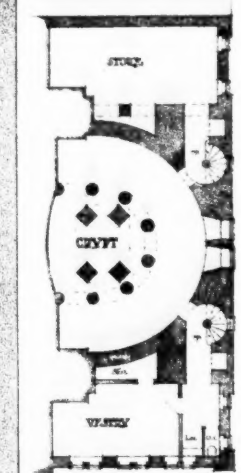
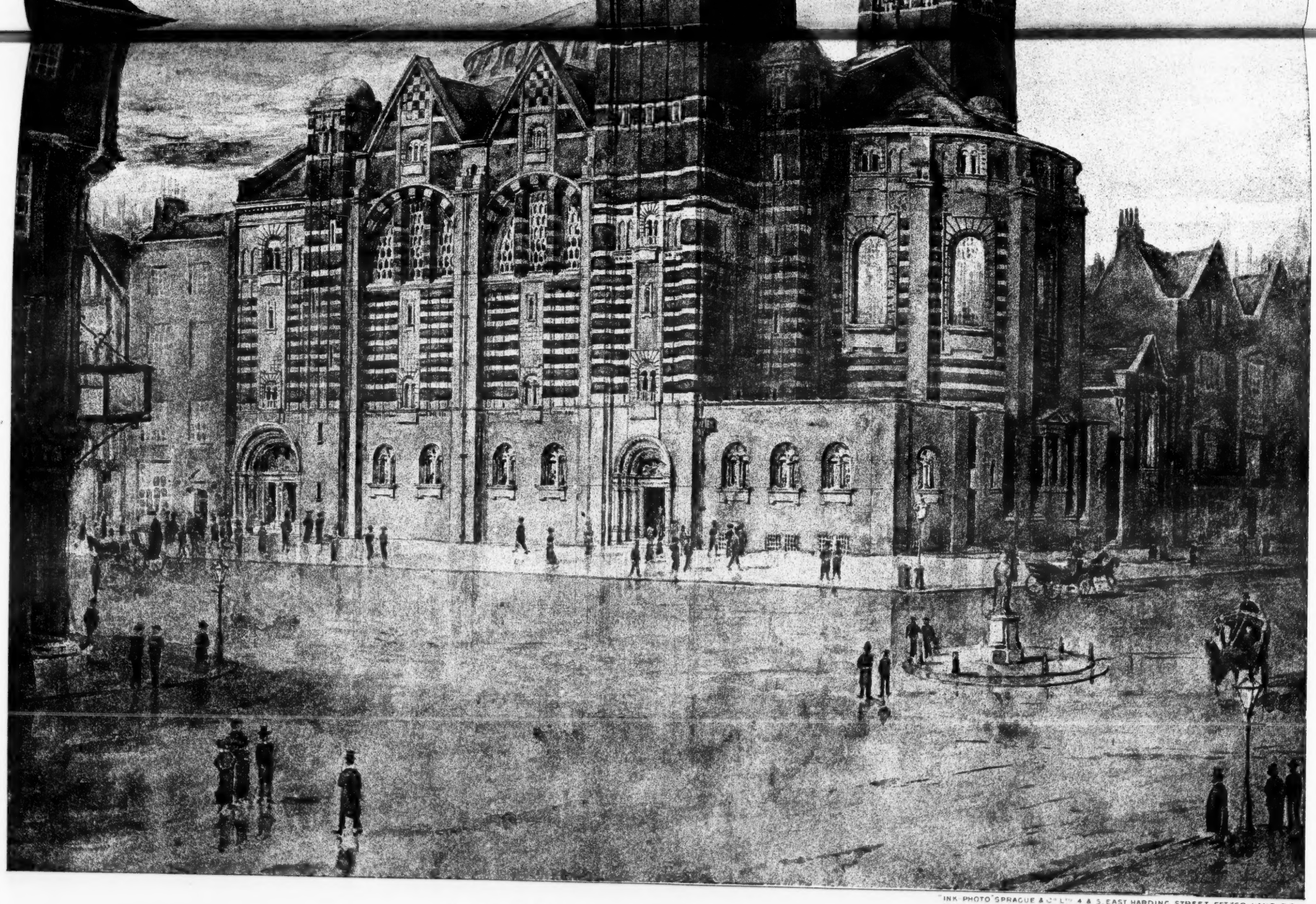
Write for Catalogue "Section 30" Post Free



GROUND PLAN



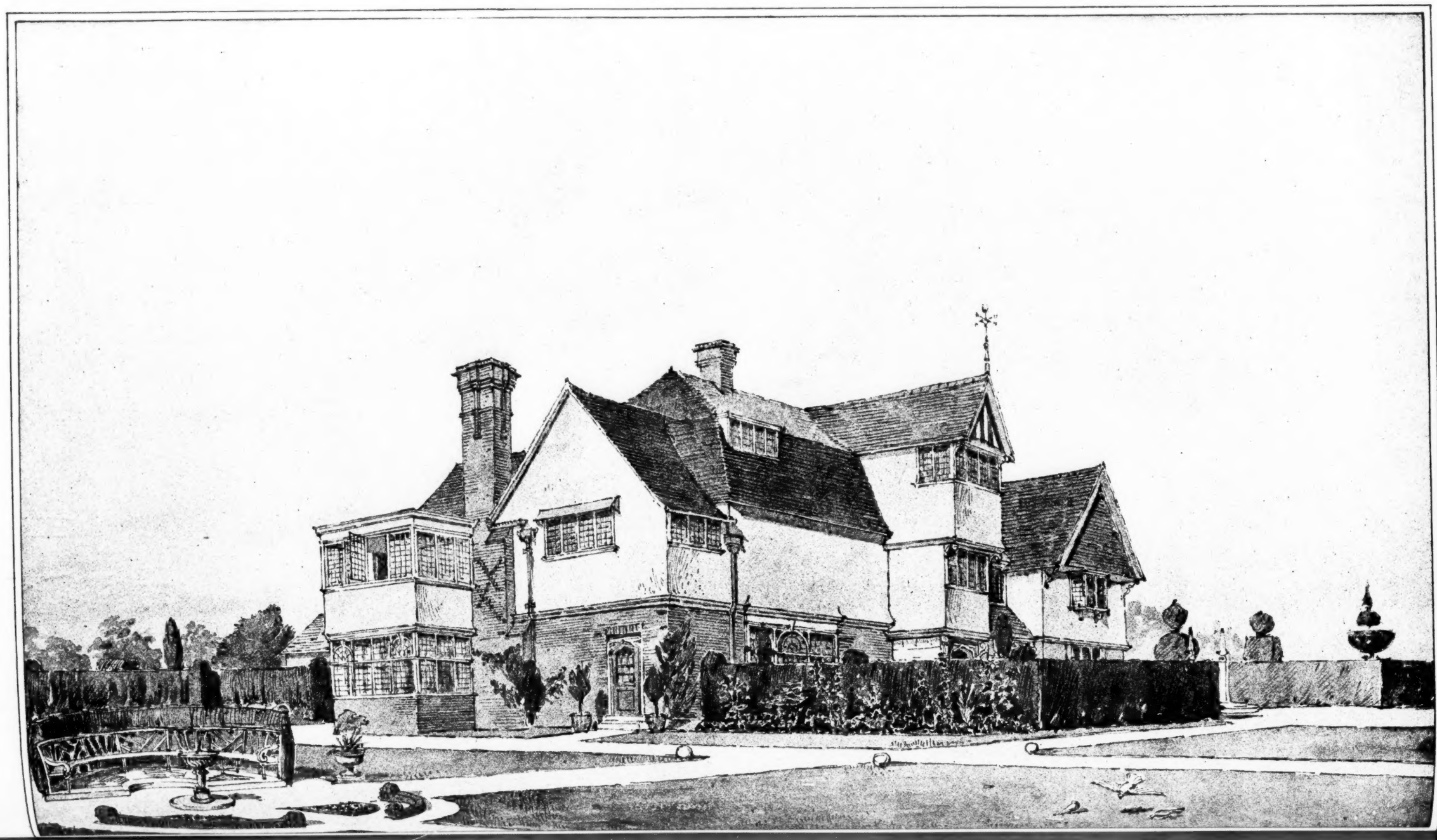
CRYPT PLAN

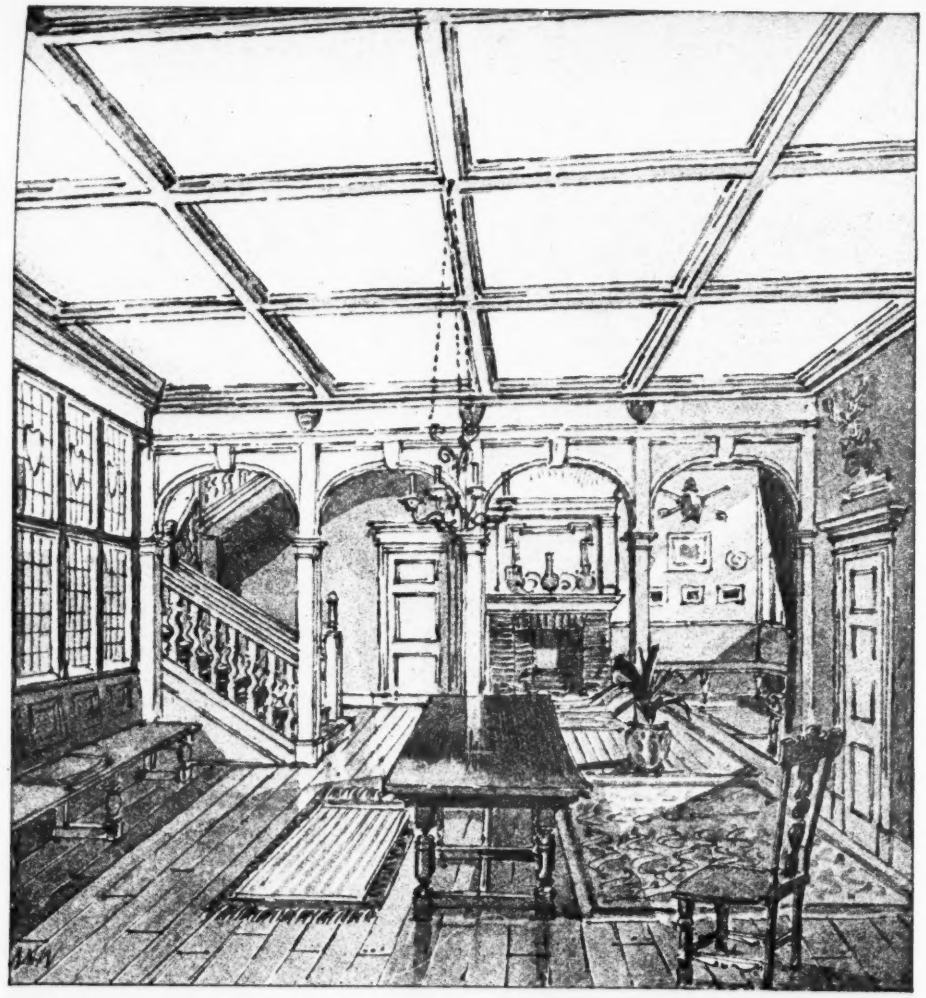


INK PHOTO SPRAGUE & Co LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

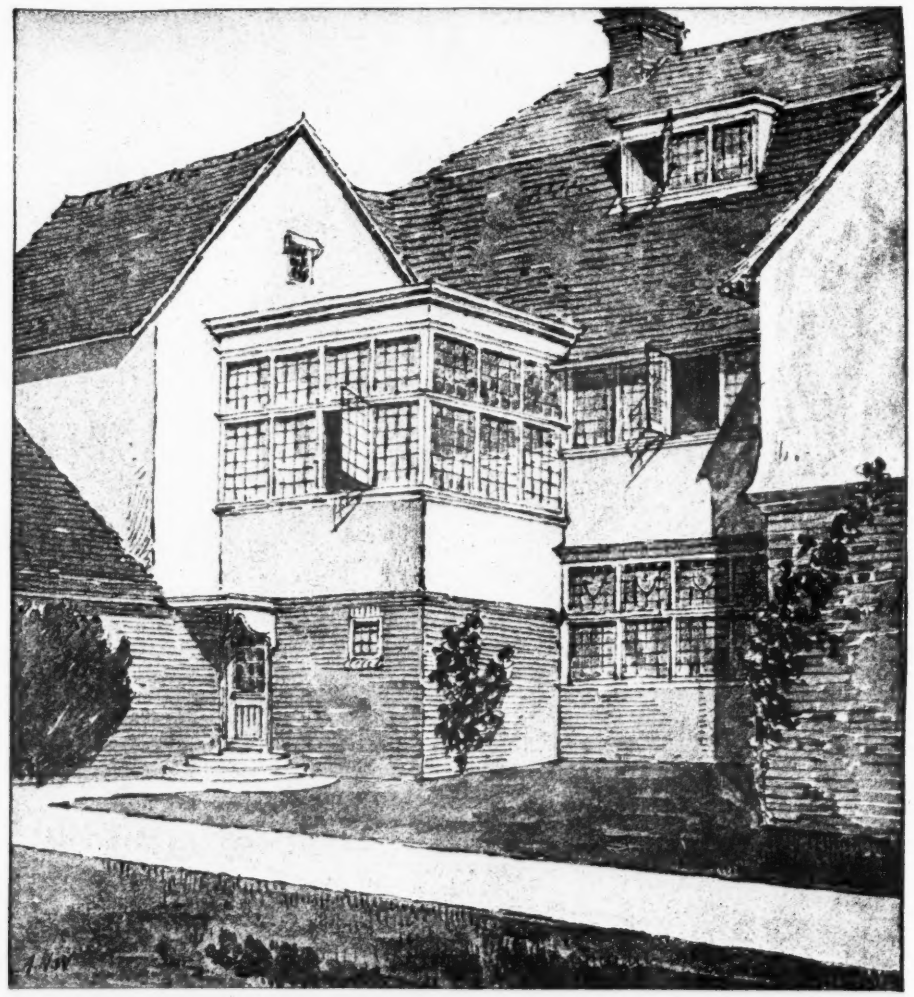
DESIGN FOR A TOWN CHURCH.—By Mr. F. J. Horth.

(SUBMITTED IN COMPETITION FOR THE SOANE MEDALLION.)





View of Hall



Staircase Bay

"INK-PHOTO" SPRAGUE & Co LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

"TENANTREES," KNIGHTON, DORSET.—Mr. C. E. Ponting, F.S.A., Architect.

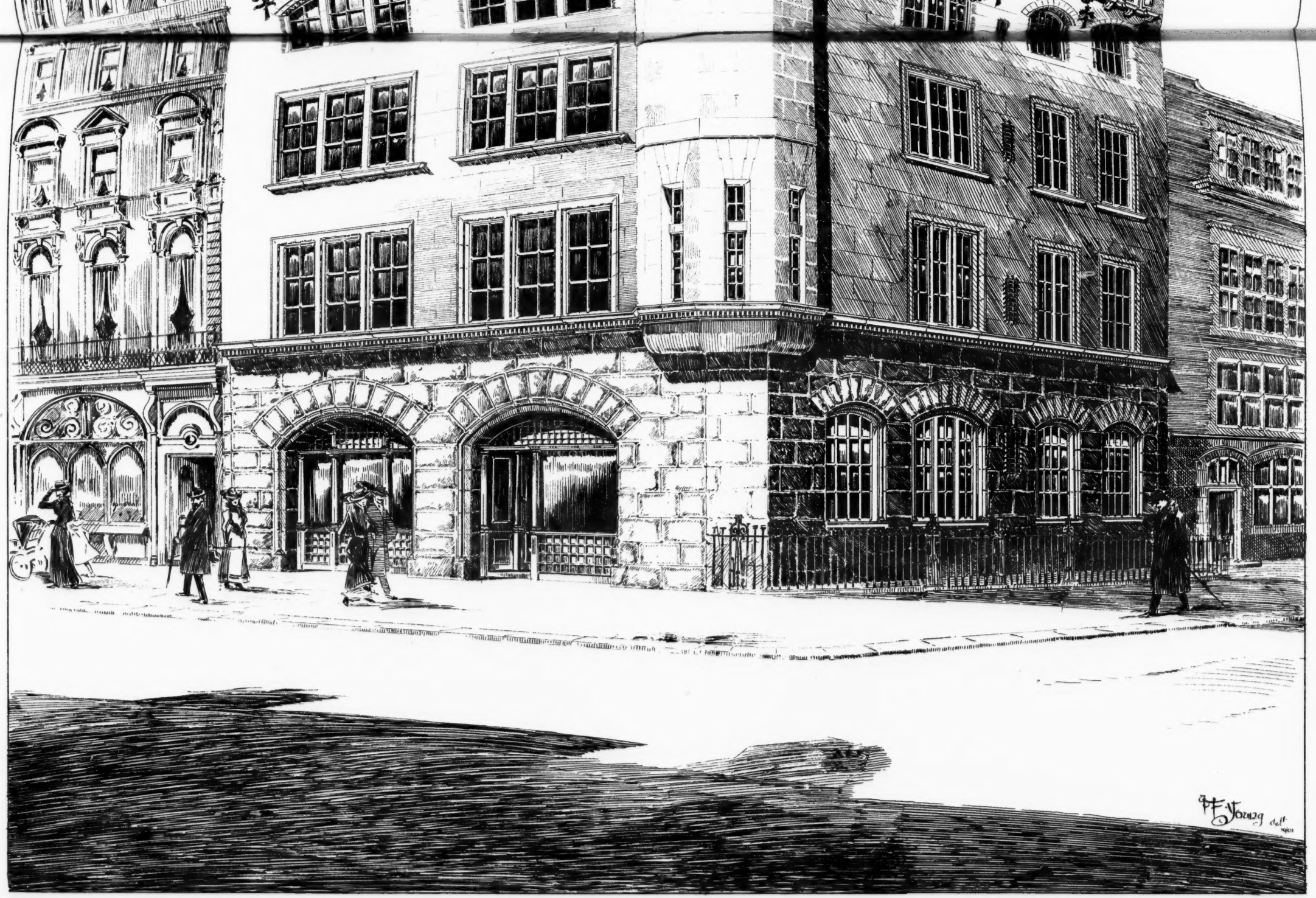


PHOTO-LITHO. SPRAGUE & Co. Ltd. 4 & 5 EAST HARDING STREET, FETTER LANE, E.C.

BUSINESS PREMISES, JERMYN STREET.—Mr. Reginald Morphew, Architect.

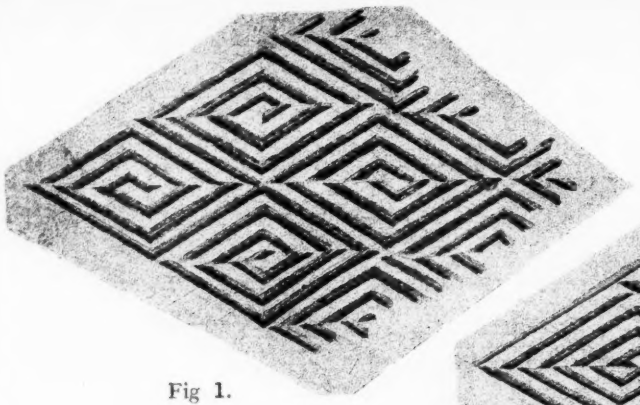


Fig 1.

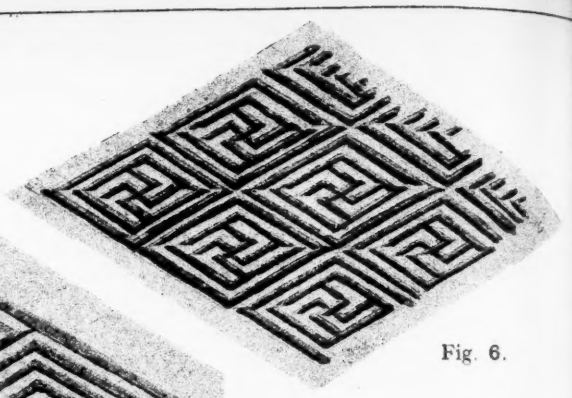


Fig. 6.

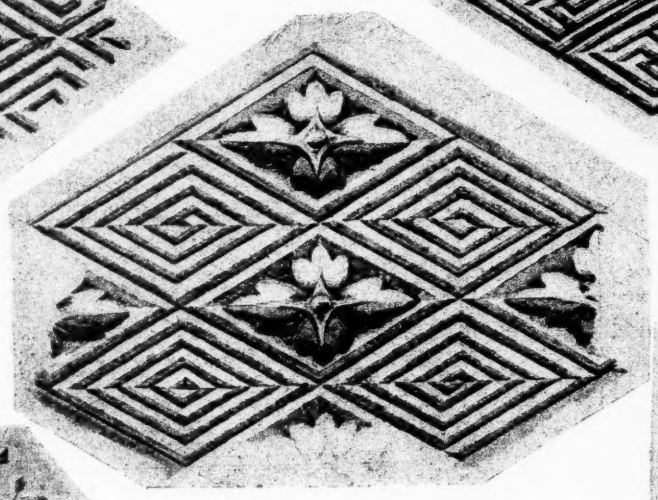
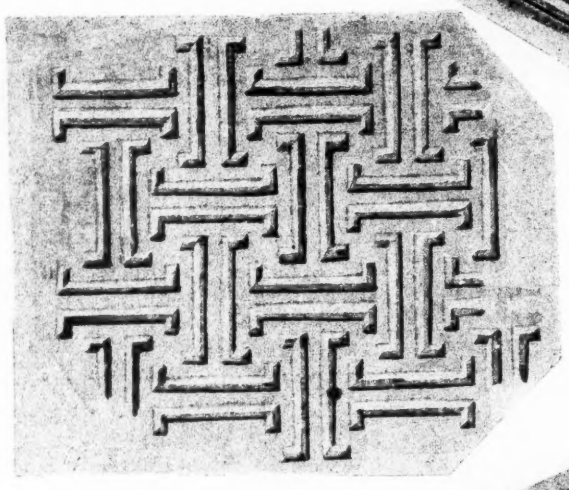


Fig. 2.



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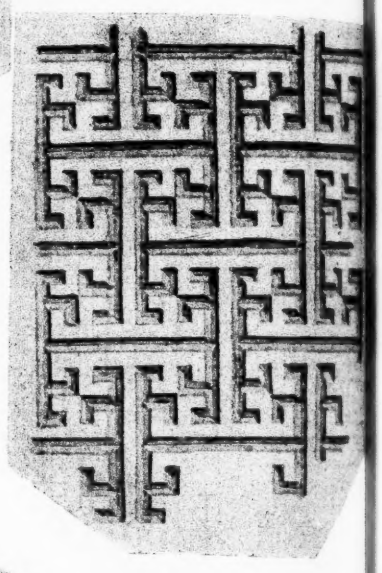

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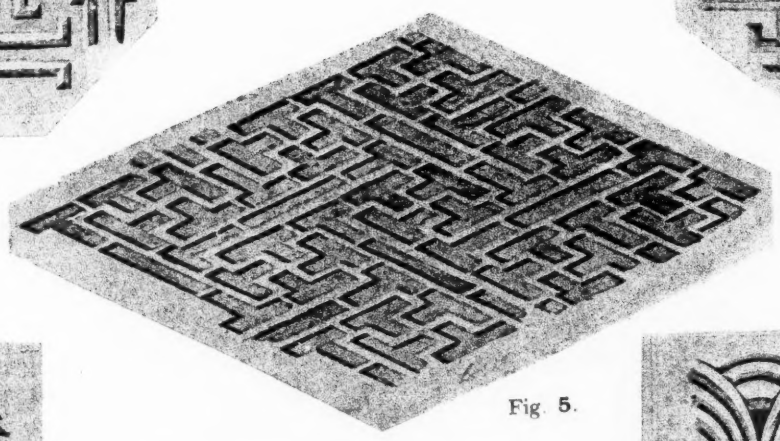

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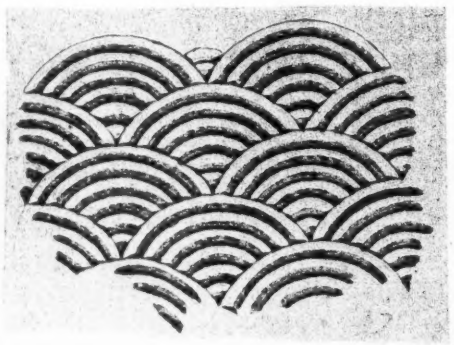

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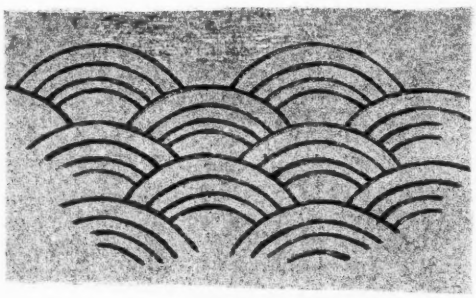

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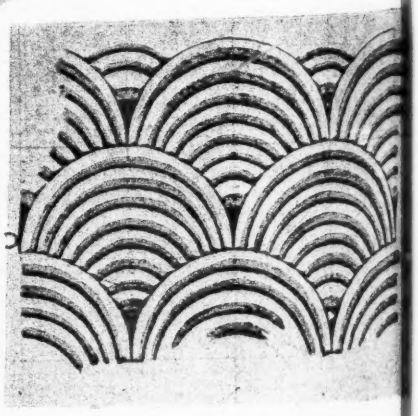

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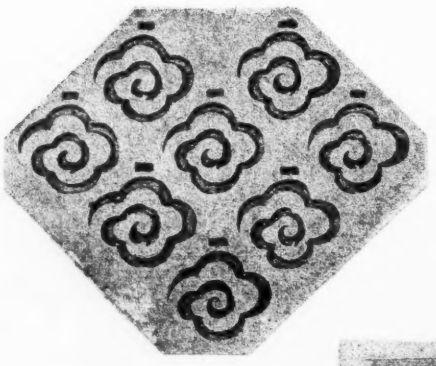
Fig. 20.



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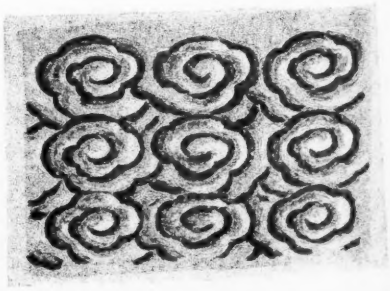
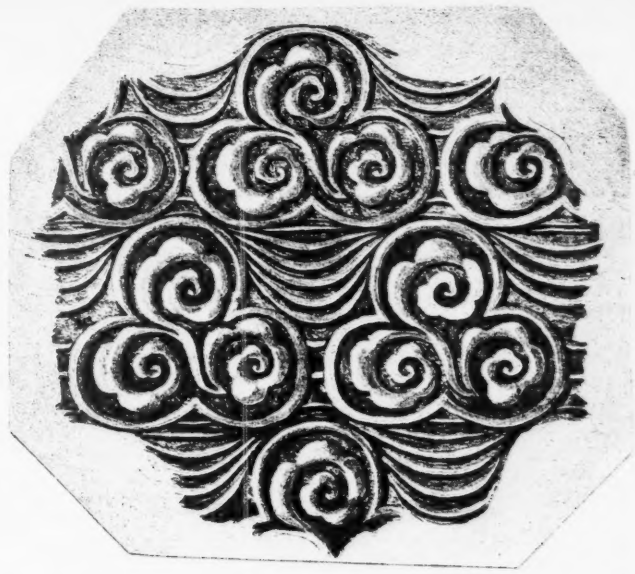


Fig. 17

Fig. 19

Fig. 18.



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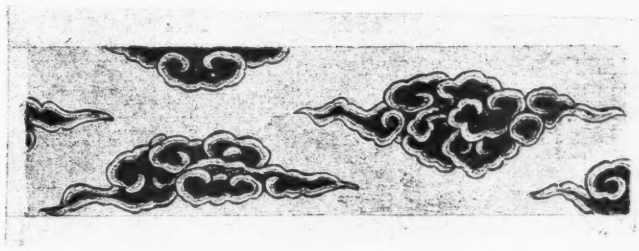

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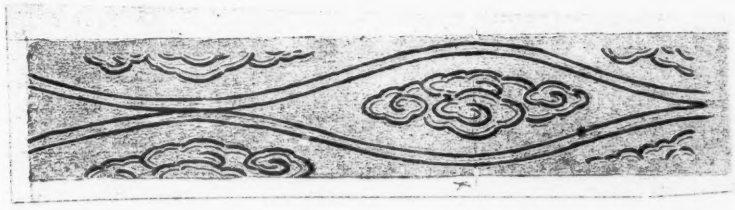
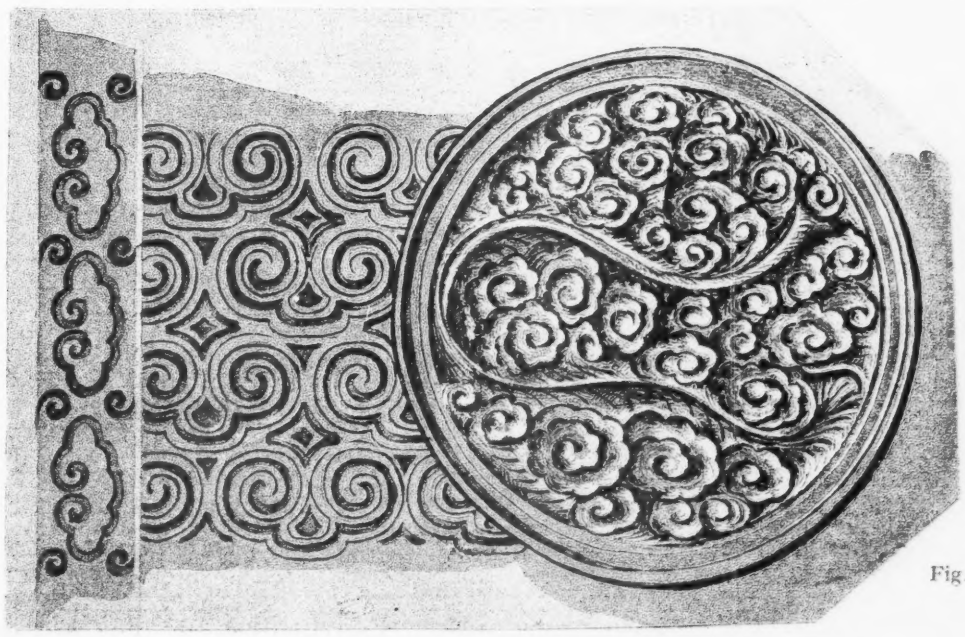


Fig. 16.

Fig. 21.

Fig. 12.



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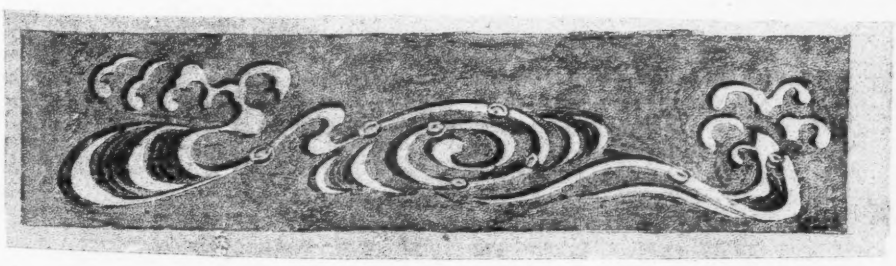

Fig. 13.

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